

CONCEPTION RATE OF CYCLIC MARES USED AS RECEPTORS OF EMBRYOS TREATED WITH PROGESTERONE*TAXA DE CONCEPÇÃO DE ÉGUAS CÍCLICAS UTILIZADAS COMO RECEPTORAS DE EMBRIÕES TRATADAS COM PROGESTERONA***Fernando Silva Ramos**Orcid: <https://orcid.org/0000-0002-0316-2692>Lattes: <http://lattes.cnpq.br/3064097564501875>

Facisa Unai - Faculty of Health Sciences of Unai

Email: fernandomosunai@hotmail.com**Iysandra Martineli Fonseca**Orcid: <https://orcid.org/0000-0003-4710-3587>Lattes: <http://lattes.cnpq.br/4244807340562287>

Facisa Unai - Faculty of Health Sciences of Unai

E-mail: iysandra.fonseca@facisaunai.edu.br**ABSTRACT**

The reproductive biotechnologies applied in equinoculture allowed the optimization of reproductive indexes, increasing the number of products of mares with high zootechnical value in a breeding season and still allowing them to reproduce without being absent from their sporting activities through techniques such as embryo transfer. The objective of this work was to demonstrate that the use of the hormone progesterone in embryo recipient mares produces significant beneficial effects regarding the conception rates of these animals, potentiating the advancement of the technique, reducing costs with donor and recipient resynchronization, semen logistics besides allowing a better use of available receivers. In order to carry out this experiment, 80 female mixed breed horses were used, divided into two groups, one without the use of injectable progesterone and the other with the use of injectable progesterone. The degree of uterine edema at the time of the innovations and the conception rate at 13 and 40 days after the innovations were evaluated. There was an effect between treatments for the evaluated parameters, with treatment using progesterone showing better results.

KEYWORDS: Progesterone. Reproduction. Embryo transfer.**RESUMO**

As biotecnologias reprodutivas aplicadas na equinocultura permitiram a otimização dos índices reprodutivos elevando o número de produtos de éguas com alto valor zootécnico em uma estação de monta e ainda permitindo com que estas se reproduzam sem que se ausentem de suas atividades esportivas por meio de técnicas como a transferência de embriões. Objetivou-se neste trabalho demonstrar

que uso de do hormônio progesterona em éguas receptoras de embriões produz efeitos benéficos significativos no que tange as taxas de concepção destes animais, potencializando o avanço da técnica, reduzindo custos com a resincronização de doadoras e receptoras, logística de sêmen além de permitir um melhor aproveitamento de receptoras disponíveis. Para a realização deste experimento foram utilizados 80 equinos sem raça definida, fêmeas, divididos em dois grupos, um sem o uso de progesterona injetável e outro com uso de progesterona injetável. Foram avaliados o grau de edema uterino no momento das inovulações, e a taxa de concepção aos 13 e 40 dias após as inovulações. Houve efeito entre os tratamentos para os parâmetros avaliados, tendo apresentado melhores resultados o tratamento utilizando progesterona.

PALAVRAS- CHAVE: Progesterona. Reprodução. Transferência de embriões.

1. INTRODUCTION

Equine farming has a visible economic representativeness in the national territory, mainly due to the fact that the horse has unique representation, since remote times in the development of the country, such as in the era of Colonial Brazil, being used as a means of locomotion, means of traction, exploration of the soil. and also in wars. The horses still in the current times demonstrate notorious relevance, being still a means for the work in the field, laser and sport.

The equine species is seasonally polyestrous , or positive photoperiod , that is, the mares have several estrus at certain times of the year, which are manifested in periods of greater luminosity, where light, when penetrating the retina, inhibits the production of melatonin, the hormone responsible by inhibiting the release of GnRH , which naturally leads to seasonal anestrus .

Horses are considered the least fertile species when compared to other species, since they have physiological peculiarities that negatively affect the species' conception rates, considerably reducing the success of reproductive programs such as embryo transfer.

Research and various strategies have been implemented over the years in order to increase reproductive rates in horses, especially methods and techniques that aim to improve the biotechnology of embryo transfer in the species. Technologies such as hormonal protocols using exogenous progestogens have been a viable and satisfactory alternative, increasing pregnancy rates of inovulated recipients .

Several exogenous and endogenous factors contribute to the deficit or plasma instability of progesterone concentrations in embryo recipients, which can result in embryonic death caused by the endogenous maternal release of PGF2a-type prostaglandin and the momentary uterine inappetence to harbor the embryo and lead to term pregnancy . In this context, the objective was to prove the effectiveness of the use of the hormone progesterone on the pregnancy rates of recipient mares in an embryo transfer program, using a control group in which the described hormone was not used as a comparative method.

2. THEORETICAL FRAMEWORK

2.1 Equine Market in Brazil

Brazil has the fourth largest equine herd in the world and the largest in all of Latin America, with about 5.8 million heads, moving annually in the country 16 billion reais a year and generating something around 610 thousand direct and indirect jobs. (ANUALPEC, 2017). Based on an economic, political and social nature, the activity in the country has relevant visibility in livestock, recognized as the “Horse Agribusiness Complex” (MAPA, 2016).

According to the latest survey conducted in 2009 by *American HorsePublications*, the horse industry worldwide has an economic impact of 300 billion dollars. According to surveys of all countries mentioned by FAOSTAT (2007) and the largest herds in the world updated by FAO (2009), the world population is estimated at more than 59 million equids, with 5 countries having 54% of the total of these animals. The 5 countries mentioned with the largest herds are: United States (approximately 9,500,000 individuals); China (6,823,360); Mexico (6,350,000); Brazil (5,851,238 - IBGE, 2016); Argentina (3,680,000).

Worldwide, equinoculture has played an important role in the economy of nations, this factor is attributed not only to the attachment of people to work with these animals, but also to the fact that the horse industry has extensive diversification connecting areas and requiring different professionals. types of specialties, education and skills. Thus, the equestrian agribusiness complex does not only cover the horse as a hobby, but also nutrition, advertising, production, veterinary care, fashion and several other fields that make the equine industry a multimillion-dollar enterprise (DIAS, 2016).

Taking into account the fact that there is a series of chains linked to this production, agribusiness involving horses does not fit into the standard structure of an agribusiness. Pioneering studies on horse agribusiness carried out by the Confederation of Agriculture and Livestock of Brazil - CNA (2006) reported that equinoculture should be classified as an agricultural complex.

equine production chain supports numerous activities and is visibly divided into a rural segment – breeding, training, maintenance, and riding – and a segment of urban activities – sports, shows, presentations, sales and therapy. If combined, both segments represent the majority of the equine population, with micro-farms, mounted police departments, circuses, zoos and a few other smaller groups representing the remainder of the population, such flexibility has made the horse highly valuable to humans, these characteristics also have the ability to make the equine industry highly challenging when it comes to updating numbers, both for the population itself, as well as for involvement in the economics of the activity (BLUMAN, 2017).

2.2 History of embryo transfer

Nowadays, equideoculture plays an important role in the global economy as a source of employment and income. In Brazil, the category is experiencing a moment of progressive growth. With the equine market visibly heated, the demand for animals with superior genetics and good performance in sports competitions has increased considerably (CNA, 2010).

The equine species was for some time considered the species with the lowest fertility when compared to other domestic species, this factor being attributed to selection characteristics and problems related to reproductive management. However, the creation of innovative reproductive techniques allowed the best use of these animals, which makes it possible to quickly improve the breeds and their crosses, with the embryo transfer technique being the most effective tool, generating satisfactory reproductive rates. Becoming an increasingly common method for obtaining pregnancies (SILVA, 2014)

In this way, the biotechnologies of assisted reproduction stand out, which are of singular importance to meet the demand of superior animals, optimizing reproductive indices and improving the genetics of animals. Among several assisted reproduction techniques applied to horses, embryo transfer is highlighted, which is a reality all over the world and consists of removing an embryo from the uterus of a mare, this so-called donor, and then transferring it to the uterus of another mare, called the recipient. (SILVA, 2014).

In 1969, the first studies involving the transfer of embryos in the equine species were carried out by a group of Japanese researchers. This same group later reported, in 1972, a rate of 45% of embryonic recovery, but without any confirmed conception of pregnancy, after years these same researchers managed to reach a percentage of conception of 40% of the transferred embryos, still continuing with line of research, where they used 20 donor mares, collecting 18 embryos, with 15 viable embryos transferred by the non-surgical transcervical method, to recipient mares in synchronism from -5 to +7 days, in relation to the donor mares (SILVA, 2014).

In the world, the first embryo transfers performed in horses and classified as being successful, occurred in the 70s in Cambridge, England, occurring between horses and mules, where embryos were collected and transferred by surgery via laparotomy, through the flank or midline (ALLEN, 2005).

According to Silva (2015), the technique of non-surgical transference in mares occurred in Japan for the first time, since the inovation techniques until then were performed by surgical methods, through laparotomy being very invasive. From then on, this technique became widespread in several countries of the world, being considered one of the most used biotechniques in equine assisted reproduction because it is classified as less invasive and more practical, when compared to the surgical technique, presenting statistically more representative indices.

In Brazil in 1987, the technique started in the equine species, where the main responsible were the Veterinary Doctor João Junqueira Fleury, and Cezinande Meira and Marc Henry, who used surgical and non-surgical methods, respectively, to carry out the transfers (FLEURY et al., 1991).

2.3 Reproductive Anatomical Approach

Teske (2017) the anatomical knowledge of the mare's reproductive system is of great importance for the execution of the technique, in order to achieve success in reproductive management and reduce economic losses. The mare's reproductive system consists of two ovaries, two oviducts, two uterine horns, body of the uterus, cervix, vagina and vulva.

The oviducts run from the ends of the uterine horns until reaching the ovulation fossa, dividing into the ampulla, which covers the ovulation fossa, and the isthmus, which ends in a papilla at the end of the uterine horn. The uterine horns are shaped like a "V" and diverge sharply from the ligament. In the non-pregnant mare, the uterus is approximately 20 cm in size, ending at the cervix (TESKE, 2010).

The cervix extends from the internal orifice of the uterus to the external orifice located in the vagina that extends to the vulva. It is recommended that the vulva has a vertical position without any deviation and the vulvar labia must be completely closed, not allowing air to enter the vagina, preventing the occurrence of pneumovagina (LEY, 2013).

The study of the stallion's reproductive organs also becomes a relevant factor for equine reproduction as mentioned by Dittrich (2010) and this system consists of the testes, epididymis, vas deferens, urethra (pelvic and penile), penis and foreskin.

The stallion has three important accessory glands: the seminal vesicles, which have the function of producing most of the semen, serving for the transport and nutrition of spermatozoa; the prostate, with the function of neutralizing the acidic pH of the vagina; and the bulbourethral glands, which clean the urethra and, at the end of ejaculation, secrete a kind of "plug", which is spermicidal and has the function of reducing the chances of fertilization by other males (DITTRICH, 2010).

2.4 Reproductive Physiology

equine species is called seasonal polyestrous, presenting a constant reproductive cycle at a certain time of the year, being this period the one with the highest luminosity (Diniz 2011). The process of natural selection programmed the mare's central nervous system to recognize the length of the day, through the recognition of the luminosity that reaches the retina, and through this factor, they were selected to start their estrous cycle only when the days are longer. In spring and summer, so mares that are located further north or south of the equator show later cyclicity within the season than those that are located closer to the equator. Mares that are very close to the equator have minimal seasonal variation in terms of the length of the estrous cycle (ARISTIZÁBAL, 2017).

In mares, the importance of increased luminosity in the reproductive period is due to the fact that when there is greater presence of light, concomitantly there will be less production of the hormone melatonin by the pineal gland, which is regulated by optic nerve stimuli, through the reception or not of external light stimuli, with the lower concentration of this hormone in the systemic circulation, there will be a greater production of GnRH (Gonadotropin Releasing Hormone) by the hypothalamus, since

melatonin makes negative feedback to GnRH in the hypothalamus, inhibiting cyclicity in mares. The increase in luminosity occurs precisely in spring/summer and stimulates cyclicity in horses (DITTRICH, 2010).

The hypothalamus has, among its many attributions, the function of producing and secreting GnRH, which acts on the adenohypophysis and stimulating this part of the gland to secrete FSH (Follicle Stimulating Hormone) and LH (Luteinizing Hormone), FSH has the role of stimulating follicular growth, which will produce steroid hormones such as estrogen that allow the manifestations of estrus, the follicles in the equine species grow about 2 to 3 mm per day (LIMA, 2017). During diestrus, LH has relatively low concentrations, however it has a progressive increase during the estrogen peaks that occur during estrus, LH also has its functions performed on the hemorrhagic body, stimulating the production of progesterone, a hormone with a fundamental role in gestational maintenance (TESKE, 2017).

The period understood as the estrous cycle is defined as the time in which several changes in the mares' reproductive system occur, repeating with averages close to 22 days (FRAZÃO, 2017). The cycle is defined as the interval that occurs between two subsequent ovulations and is divided into the follicular and luteal phases (ARISTIZÁBAL, 2017).

The reproductive cycle, also called estrous cycle, can be classified as the follicular phase (estrus) in which there is a greater predominance of estrogen, a phase in which the mares are receptive to males and the reproductive tract is able to mate and also transport sperm by the oviduct. (DINIZ, 2011).

The second phase of the reproductive cycle is called the luteal phase (diestrus) in which the corpus luteum is present and the hormone progesterone is dominant. Primary corpora lutea are those resulting from ovulation of dominant follicles of primary waves at the end of estrus, on the other hand, secondary corpora lutea are the result of ovulations of dominant follicles arising from secondary waves during diestrus or during pregnancy. The accessory corpora lutea arise from the ovulation of follicular wave follicles during pregnancy and/or from the luteinization of anovulatory follicles. Both secondary and accessory corpora lutea are referred to in the literature as supplementary corpora lutea. The diestrus phase ends when the corpus luteum regresses, an action also called luteolysis, with the start of a new follicular wave, giving sequence to the reproductive cycle (DINIZ, 2011).

2.5 Hormone Therapy in Equine Gynecology

The increase of the reproductive efficiency is a factor of great relevance in the equine culture, in view of the better use and intensification of the rhythm of genetic improvement of the species. The incidences of ovulations vary significantly during the year as a result of equine reproductive seasonality, so hormone therapy applied to equine gynecology plays an important role in reproductive biotechnologies (FARIA; GRADELA, 2010).

2.5.1 Prostaglandins (PGs)

A hormone present in all animal tissues, it has diversified functions and is part of the group of eicosanoids that derive from Arachidonic Acid , which is cleaved by cyclooxygenase enzymes and forms a pentane ring receiving various geometric arrangements. The by-products generated through the cleavage of Arachidonic Acid have several metabolic actions, physiological and pathological processes, ovulation, endocrine function, among others (SILVA, 2012).

Among the various luteolytic agents , PGF₂α is the primary agent in mares, as it has a high effectiveness of luteolysis in non-pregnant equine females that occurs after its release by endometrial cells between days 13 and 16 after ovulation. Prostaglandins can be used to perform luteolysis in persistent or anestrolactational corpus luteum , control ovulation time, induce gonadotropin secretion, synchronize estrus, treat mares with endometritis , eliminate pseudopregnancy , stimulate uterine contraction, and promote abortions before formation. of endometrial calyces. Although several routes can be used for the administration of prostaglandins, the intramuscular route is preferred, as it combines practicality and minimal side effects. In the synchronization and induction of estrus, prostaglandin can be applied at any stage of the estrous cycle in two doses, with an interval of 14 days, or in a single dose, after the detection of a mature corpus luteum, or associated with the administration of Progesterone (P4). The corpus luteum under normal conditions is responsive to prostaglandins after 4 days of ovulation, when it becomes mature (NETO, 2017).

2.5.2 Estrogens (E2)

Estrogens are steroid hormones which allow the signs of estrus to be manifested when they are at their peak and are produced mainly by the ovarian follicles and also by the fetoplacental unit , but on the other hand a small amount is also produced in other areas of the body. (GRANDELA, 2010). Follicular estrogen secretion peaks one or two days before ovulation and declines to baseline levels in diestrus . of the LH (SILVA, 2014).

Administration of a small dose of estradiol (0.5 to 1.0 mg) in mares in deep anestrus is able to induce signs of estrus within 3 to 6 hours, whereas in mares with a functional corpus luteum, signs of estrus are not observed. observed (NETO, 2017).

2.5.3 Progesterone (P4)

The hormone progesterone is a natural progestogen produced by the luteal cells of the corpus luteum, the placenta, and the adrenal glands . Its secretion is stimulated by LH and its function is to promote the closure of estrus signals, keep the female non-receptive to the male, prepare the uterus for the reception of the embryo and maintain the initial pregnancy by increasing the secretory activity of the endometrial glands and uterine tonicity. . In addition, it has the ability to inhibit the episodic release of LH when in high levels, being, therefore, an important regulator of the estrous cycle (HAFEZ , 2004).

Treatment with the use of progestogens, whether oral, injectable or through intravaginal devices impregnated with P4, can be used to control the estrous cycle of horses, aiming to suppress follicular growth and control the moment of ovulation, in addition to performing estrus synchronization. and ovulation in cyclic mares, P4 can be used in several functions applied to equine gynecology, such as: inducing cyclicity in anestrus recipients, allowing the use of anestrus mares and mules as embryo recipients, improving the tonicity of the embryo. uterus, favoring the maintenance of pregnancy, and suppressing the manifestation of heat (FRAZÃO, 2017).

The need to create successful hormonal protocols aimed at stimulating ovarian cyclicity to overcome seasonal anestrus has become a target in the equine industry, especially in recent decades, since several biotechniques, including embryo transfer, have been expanding in several regions of the country (FRAZÃO, 2017).

2.5.4 Human Chorionic Gonadotropin (hCG)

hCG has physiological activity with functions similar to those performed by LH, however it has a protein conformation different from LH, this hormone has been used effectively in inducing ovulation in mares, as it reduces the duration of estrus and the interval until ovulation, causing this to occur within 48 hours, which reduces the number of inseminations and the amount of cover required per estrus (NETO, 2017).

peptide hormone which is produced by the human placenta, able to stimulate luteal function and promote gestational maintenance in mares. The use of hCG in mares that have a preovulatory follicle of at least 35 mm in diameter is effective in inducing ovulation within 48 hours in about 80% of the animals, presenting itself as an effective way of inducing ovulation in mares, the use of hCG in mares with more than one pre-ovulatory follicle increases the possibility of double ovulations (FRAZÃO, 2017).

If, on the one hand, hCG has great effectiveness in inducing ovulation, when administered frequently in the same breeding season, it can lead to the development of antibodies through the activation of the animal's immune system. Some authors cite that the intravenous route of administration of the hormone is less likely to lead to the development of antibodies, thus the intramuscular route has been described as the safest route for drug administration in view of reducing the chances of antibody formation (FRAZÃO, 2017).

2.5.5 Gonadotropin Releasing Hormone (GnRH)

GnRH is a peptide produced and stored in the midbasal hypothalamus, it establishes a link between the hypothalamic - pituitary - gonadal axis so that in response to nerve stimulation, GnRH pulses are released in the hypothalamic-pituitary portal system, inducing the anterior pituitary to release LH and FSH. It can be used to stimulate follicular development, induce FSH secretion in anestrus mares or mares that do not develop pre-ovulatory follicles during the breeding season, in addition to having the function of decreasing the antigenicity caused by hCG (HAFEZ, 2004).

Commercially there are 3 different types of GnRH analogues, these being buserelin acetate, deslorelin acetate and fertirelin acetate, the three being efficient in raising LH rates and promoting ovulation in cyclic mares, the difference between the three analogues is in the time of ovulation that each one causes, being on average 24 to 48 hours for buserelin acetate, 36 to 48 hours for deslorelin and 12 to 48 hours for fertirelin acetate. Among the analogues, deslorelin stands out, as it has the ability to reduce the number of coverages, as well as the number of visits to the veterinarian to perform follicular control, as it has greater effectiveness of action and is also more precise in the performance of the function. It becomes crucial to aid in ovulation induction in embryo transfer and artificial insemination programs, especially for chilled and frozen semen (SAMPER et al., 2002).

2.6 Synchronization between embryo donors and recipients

The process of preparing embryo-receiving mares in breeding centers is the action that demands the most time and dedication, as females need daily assessment through transrectal palpation and ultrasound of the ovaries and uterus (NETO, 2017).

The synchronization between embryo donors and recipients is of great importance for the establishment of pregnancy in embryo transfer programs. The absence of synchrony, or when it is performed incorrectly, affects embryonic mortality, especially in the first week of embryonic development. The use of hormones such as progestogens, estrogens, prostaglandin, hCG, GnRH and analogues, has been used to control follicular development and also the time of ovulation (NETO, 2017).

It is essential that donors and recipients are cycling normally for the synchronization of estrus and ovulation (FRAZÃO, 2017). Synchronization between recipients and donors is a technique considered not very complex in cyclic mares, previously knowing that recipients and donors present between the sixth and fourteenth days of diestrus and the ultrasound examination of the ovaries reveals the absence of a large preovulatory follicle, which is routinely performed. administered intramuscularly PGF2- α or analogue in the donor mare, and one to two days later, the same therapy in the recipient mare (NETO, 2017). The use of prostaglandin is a highly widespread method for synchronizing equine females, but the response to this type of luteolytic agent is totally dependent on the existence of a corpus luteum responsive to it, given that the corpus luteum becomes responsive to the action of prostaglandin. prostaglandin from the fifth day after ovulation (FRAZÃO, 2017).

There are several forms of synchronization between donors and recipients, from monitoring to identify spontaneous ovulation, ovulation induction and hormone therapy, and it is important to have at least two recipient mares for each donor mare (SILVA, 2014).

In synchronization techniques using ovulation induction monitoring follicular dynamics by ultrasound and using hCG or GnRH for ovulation induction in recipient mares, 48 h after the donor is inseminated. It is noteworthy that successive applications of hCG induce the formation of antibodies, a factor that minimizes its

effectiveness in the ovulatory response . The synchronization window between donors and recipients consists of the one in which the recipients are between the fourth and eighth day of ovulation (in relation to the donor's ovulation - D0), considering that the embryo collection is on the eighth day when semen is used. fresh or chilled; and the recipient can ovulate in the interval from one day before (D+1) to 3 days after (D-3) of the donor, which is considered apt to be a recipient of embryos in this interval (NETO, 2017).

For the establishment of a hormonal protocol using progesterone in the synchronization of acyclic recipient mares, with the date of the uterine lavage of the embryo donors, the hormonal protocols are primarily based on the administration of estrogen, in order to simulate the hormonal condition of estrus and stimulate the expression of uterine receptors for the P4 hormone, similar to what happens in the estrous cycle of cyclic mares prior to ovulation. After 24 hours of estrogen application, the presence of uterine edema is verified through ultrasound, and if this is satisfactory, P4 or 19-nortestosterone is administered , which can be injected or oral. In this way, embryo transfer is performed with a window of 4 to 8 days after the application of the progestogen (ARISTIZÁBAL, 2017).

2.7 Use of Progesterone in Embryo Receiving Mares

According to Aristizábal (2017), the equine species, similarly to other domestic species, has the total production of progesterone during pregnancy due to the fact that it prolongs the functionality of the corpus luteum, presenting three different forms of P4 to maintain pregnancy: corpus luteum, Supplementary corpora lutea and the placenta.

The term progestogens refers to natural steroid hormones such as 'progesterone (P4) or synthetic hormones such as 19-nortestosterone , which have the ability to bind to progesterone receptors, exercising the same functions (ARISTIZÁBAL, 2017). Currently, there are formulations of injectable 19-nortestosterone and short- and long-acting progesterone, but due to the greater ease and lower handling of animals, long-acting P4 (P4 LA) is more commonly used (Rocha Filho et al., 2004).

Progesterone has a role in gestational maintenance, the intense production of this hormone and its by-products, such as 5 α - dihydroprogesterone (5 α DHP), are necessary to maintain an adequate uterine environment and provide embryonic development. After ovulation and until approximately day 40 of pregnancy, the corpus luteum is responsible for the synthesis of P4. In pregnant mares, the corpus luteum tends to persist for more than 14 to 16 days, due to gestational recognition, a period in which the embryo sensitizes the uterus through uterine migration, preventing the release of prostaglandins (ARISTIZÁBAL, 2017).

The allantochorion is in a period of expansion between days 40 and 120 of gestation, in this period the trophoblast cells have the capacity to synthesize several hormones, especially progesterone, being observed around day 70 of gestation. Between days 70 and 150 of gestation, plasma progesterone represents a mixture of P4 secreted by the declining corpus luteum and placental progestogens secreted by

the growing allantochorion . Approximately after 180 days of gestation, the production of P4 by the corpora lutea of the mare no longer occurs, and the fetal-placental unit synthesizes this hormone until the end of gestation (ALLEN, 2001).

Early embryonic loss is related to low concentrations of systemic progesterone in early pregnancy. Concentrations below 2.5 ng / mL on day 12 were used as a critical value for identifying mares with dysfunction of endogenous progesterone synthesis through the corpus luteum. Experiments demonstrate that ovariectomized mares treated with 300 mg/day of progesterone maintained pregnancy after embryo transfer (GINTHER, 1985).

The treatment of recipients with progesterone increases the proportion of recipients classified as excellent or good on the day of embryo inoculation , in addition to extending the useful period for in ovulation of these recipients. Protocols using P4, in addition to increasing the rate of use of recipients, also increase the rates of confirmed embryos after in ovulation , optimizing reproductive rates (CAIADO, 2012).

Protocols involving the use of progesterone in recipient mares in anestrus or in the transition phase have been described by several authors and their functions are numerous, such as the improvement in uterine tone, a factor that reduces uterine contractility and prevents the expulsion of the embryo. (TRIDAPALI, 2018).

3 MATERIAL AND METHODS

The experiment was carried out in the municipality of Unaí-MG between December 2018 and March 2019, on the Agropecuária Galiléia property , located in the micro-region of Palmeiras on the banks of the Roncador stream, with an altitude of approximately 565 meters, and a tropical climate with seasonal dry. The period selected for the experiment comprised the 2018/2019 breeding season, being conducted in months with higher incidences of sunlight, comprising the period of reproductive cyclicity , since the equine species is seasonally polyestrous as described by Dittich (2001).

Eighty mixed-breed embryo recipient mares were used in the experiment, with an average weight of 400 kg, aged between 5 and 8 years, which underwent a previous ultrasound examination to evaluate the reproductive system and ability to receive embryos in addition to performing Vaccine prophylaxis against: rabies, herpes virus and leptospirosis. In all recipients, tests were performed for the diagnosis of equine infectious anemia and glanders, in addition to deworming based on oral ivermectin and the control of arthropods in infested animals with drugs based on Calmafos and Propoxur . The animals were fed under a mixed pasture system consisting of tifton and mombaça in an area of approximately 50 hectares and supplemented with specific mineral salt for horses.

In the study , 20 embryo donor mares were used, of the breeds: Manga Larga Marchador, Quarter Horse, PaintHorse and PSI (Pure English), with an average age of 11 years and an average weight of 500 kg of live weight, originating from several Haras and breeders in the region.

The recipient mares were divided into two experimental groups: Group Without (P4) containing 40 mares that will not receive treatment with progesterone, using natural estrus and inducing ovulation, to be used as embryo recipients and group with (P4) with 40 mares that received treatment. All mares underwent regular ultrasound examination, which evaluated uterine contractility and edema, as well as follicular dynamics.

Mares belonging to the Com Group (P4) were evaluated mainly for uterine edema and follicular dynamics, which when in conditions of absence of estrus, that is, without uterine edema and absence of corpus luteum, received application estradiol debenzoate at a dose of 2 mg on the first day and 0.5 mg on the second day, and these animals were evaluated daily. In cases in which the response was satisfactory in terms of estrogen responsiveness, manifesting itself in increased uterine edema, the first dose of progesterone was administered using Altrenogest® (19-nortestosterone) 300 mg.

The mares in the Without (P4) group were evaluated mainly for follicular diameter and uterine edema, as well as in the group treated with progesterone, the mares when in conditions of absence of estrus, that is, without uterine edema and absence of corpus luteum, received application of estradiol benzoate at a dose of 2 mg on the first day and 0.5 mg on the second day, and these animals were evaluated daily. Cases in which the response was satisfactory in terms of estrogen responsiveness, when in conditions of a pre-ovulatory follicle, measuring over 36 mm and in the uterine evaluation, they presented grade II or III uterine edema, ovulation induction was performed with 0.25 mg/kg deslorelin analogue of GnRH (gonadotropin releasing hormone). From 36 to 48 h, time cited by Faria (2016), ovulation was checked through ultrasound to synchronize the recipient with the donor, as well as in the progesterone-treated group, the mares of the control group when in conditions of absence of estrus, that is, without uterine edema and absence of corpus luteum received application of estradiol benzoate at a dose of 2 mg on the first day and 0.5 mg on the second day. with dominant follicles from 36 mm, ovulation induction was performed.

Embryos were recovered from donors previously inseminated with fresh, chilled or frozen semen, and after 8 days of ovulation in the case of chilled or fresh semen and 9 days when inseminated with frozen semen, collections were made by the non-surgical method by uterine lavage medium with lactated Ringer's solution, using Teske's technique (2017) via transcervical probing. After recovery, the embryos were washed with holdings suitable for embryo washing (Botuembryo - Botupharma) and later inoculated into recipient mares previously synchronized with and without (P4) groups. Only embryos with grade I and II quality classification were used for in ovulation in this experiment (CAIADO et al., 2005).

Inovulations were performed in eligible recipients between day 4 and 8 after ovulation in the case of recipients belonging to the Without (P4) group, and between 2 and 8 days after the administration of 19-nortestosterone in the With (P4) group. After the inovulations, the group (P4) received an additional dose of 180 mg of 19-nortestosterone and after 13 days of embryonic development, early gestational

diagnoses were performed. long-acting progesterone (P4 LA) at a dose of 1,500 mg, this dose being repeated every 7 days until 120 days of gestation, when the placenta will start producing endogenous progesterone.

In the group Without (P4) the early gestational diagnosis was also performed with 13 days of embryonic development and in negative cases the recipients of this group received 5.0 mg of Dinoprost (Lutalyse) for luteolysis .

To carry out the experiment, a completely randomized design was used , with 2 treatments (receiver treated and not treated with progesterone) and 40 replications (animals). Data were submitted to analysis of variance, with comparison of means using Tukey 's test at 5% probability, using the statistical program (SISVAR).

4 ANALYSIS AND DISCUSSION OF RESULTS

For evaluation of uterine echotexture , gestational diagnosis at 13 days and 40 days of gestation, there was a significant effect of treatments on all parameters evaluated, at the 5% significance level of Tukey 's test (Table 1).

Table 1. Degree of Uterine Edema at the time of inoovulation (GEUI), Diagnosis of Pregnancy at 13 Days (DG13) and Diagnosis of Pregnancy at 40 Days (DG40) of mares as a function of treatments.

treatments	(GEUI)	(DG13)	(DG40)
no progesterone	0.25 b	0.55 b	0.55 b
with progesterone	0.65 to	0.85 to	0.85 to

Means followed by the same letter in the column do not differ from each other by the Tukey Test at the 5% probability level.

Source: Authors of the work, 2019.

As assumed, the treatment with the use of progesterone showed positive results related to the conception rate of animals treated with (P4) in relation to animals in the control group, so that in the group with (P4) the pregnancy rate was (85%) on days 13 and 40 of gestation. In contrast, untreated mares showed a gestational rate of (55%) at 13 and 40 days of embryonic development in the second evaluation .

In relation to the parameter degree of uterine edema at the time of inoovulation evaluated in the experiment, the groups showed a significant discrepancy for this variable, so that the mares of the control group in which the ovulation induction protocol was performed, obtained a mean uterine edema of (0.25), whereas the group tested with progesterone had a mean value of uterine edema of (0.65) .

Silva et al. (2012), used 64 cyclic recipients, ovulated and classified as excellent, treated with 1500 mg of long- acting progesterone on the day of ovulation, which were inoovulated on the second day after ovulation and obtained 71% of pregnancy . Similar results were found by Bartolomeu (2014), when he treated 17 acyclic mares with 2000 mg of long-acting progesterone with a previous application

of 10 mg of estradiol benzoate 48 hours before the administration of progesterone, being in ovulated between the fourth and eighth day of treatment. in which they presented 76% of pregnancy , rates close to those found in this study.

In a study Aristizábal (2014), suggests that the use of the hormone 19-nortestosterone can maintain the plasma concentrations of progesterone of the luteal phase at a level of (3.41 to 3.33 ng /dl) standard found in pregnant mares without sources endogenous progesterone levels, in the same study the author evaluated the pregnancy rate at 15 days in a study with 81 acyclic mares treated with 19-nortestosterone and a control group with 74 cyclic mares, obtaining a result of 46% and 59% of pregnancy respectively, there was no statistical difference between the groups, possibly the lower pregnancy rate in the 19-nortestosterone group may have been influenced by the fact that they were acyclic mares.

Lower pregnancy rates, when compared to the present work, are reported by Tridapali (2018), when, through an experiment with 37 recipients using long-acting progesterone application, which were in ovulated between the second and seventh day after treatment, conception was obtained. 56%, in the same study using progesterone in recipients, but ovulated and with a small corpus luteum and unable to produce enough progesterone to maintain a pregnancy and in ovulated between the second and seventh day post ovulation showed conception of 61%. Rates considered high when compared to the control group of the same study without the use of progesterone, in which this group presented 31% of conception.

Additionally, Júnior (2017) reports that protocols involving the use of estrogen and subsequent applications of short- or long-acting progesterone or the use of 19-nortestosterone in acyclic recipient mares, present satisfactory results in embryo transfer programs, increasing the number of recipients suitable for in ovulation and raising the incidence of conception.

According to Rocha and Filho et al . (2004) demonstrate that the use of short-acting or long-acting progesterone, in studies with cyclic and acyclic embryo-receiving mares, showed no statistical difference. Thus, stating that the initial use of the hormone 19-nortestosterone with subsequent applications of long-acting progesterone do not interfere with pregnancy rates.

Progesterone plays a key role with regard to embryonic maintenance (MONTEIRO, 2016) studies carried out by Hinrichs et al. (1987) who used ovariectomized recipients treated with 300 mg of long-acting oily progesterone daily for 20 days, following the treatment for 100 days of gestation, demonstrated that these mares were able to maintain pregnancy even without the presence of the ovaries and still demonstrates in the work that the plasma levels of progesterone of mares treated with progesterone were similar to the control group.

Starting from the justification that long-acting progesterone, when compared to short-acting progesterone; 19-nortestosterone , has a prolonged period of activity at the reproductive level, as it remains in high plasma concentrations for a longer period, reflecting the demand for a longer time to return to estrus (SILVA, 2015), culminating in an increase in the period of waiting for reuse of these recipients, in case they reabsorb the in ovulated embryo . Thus, the protocol adopted with the use

of long-acting progesterone was conducted with previous use of 19-nortestosterone , and a positive gestational diagnosis at 13 days of gestation.

The previous use of estradiol benzoate in certain recipients with an unsatisfactory degree of uterine edema performed in the experiment is justified by the need to temporarily maintain a high plasma estrogen concentration (ALLEN, 2001), and this estrogen concentration is manifested by the appearance of uterine edema. characteristic so that circulating estrogen stimulates the expression of progesterone receptors and preparing the endometrium to carry the pregnancy to term (HUGHES *et al.* , 1977).

Regarding the assessment of uterine tone, the group treated with progesterone had a higher degree of uterine edema compared to the control group. Fontes *et al.* (2007) presents a study in which just over 25% of recipients treated with progesterone had a low degree of uterine edema, while those who belonged to the control group without P4 use more than 71 % had a low degree of uterine edema, both groups evaluated on the second day after ovulation. Based on the results presented, it is suggested that the lower degree of uterine edema presented by the animals of the control group in this experiment is due to the fact that these receptors were physiologically in the diestrus , the phase that proceeds to ovulation, for this reason the estrogen levels they already had a decline beginning around two days before ovulation, with low concentrations on the day of in ovulation , culminating in low degrees of uterine edema (MCKINNON; CARNEVALE, 1993).

5 CONCLUSION

Thus, the use of progesterone in mares receiving embryos is shown to be an effective alternative for increasing conception rates since treatment with this hormone makes it possible to maintain a constant controlled plasma concentration of the hormone, preparing the uterine environment for gestational maintenance and increasing the availability of recipients capable of in ovulation in an embryo transfer program.

6 REFERENCES

AMERICA'S HORSE DAILY. AllAboutthe Racing American QuarterHorse . 2008. America'sHorse Daily. Available at: < <http://americashorsedaily.com/all-about-theracing-american-quarter-horse/#.VV02Fvl Viko> >. Accessed on: October 17, 2017.

ANNUALPEC 2017. Yearbook of Brazilian Livestock, 20th edn . FNP Institute , São Paulo, SP, Brazil.

ARISTIZÁBAL VHV *et al.* Embryo transfer in anovulatory recipient mares 2017 . Rev. Med . vet _ ISSN 0122-9354 ISSNe 2389-8526: Bogotá (Colombia) No. 33: 137-147, enero-junio del. Available at : www.scielo.org.co.

ARISTIZÁBAL, Viviana Helena Vallejo. Use of Injectable Altrenogest for the Establishment and Maintenance of Pregnancy in Acyclic Embryo Recipient Mares . 2014. 73. Master's Dissertation.- (Master 's in Veterinary Medicine)- Universidade Estadual Paulista “Júlio Mesquita Filho”- UNESP. Botucatu, SP, 2014.

Allen WR. Fetomaternalinteractionsandinfluencesduringequinepregnancy . Reproduction, v. 121, p513-527, 2001.

ALLEN, WR Maternal recognition and maintenance of pregnancy in the mare. animal of Reproduction , v.2,n.4,p.209-223,2005 .

BARTOLOMEU, CC et al, Association of Estradiol Benzoate and Progesterone in Preparation of Acyclic Mares with Receptors. *CiênciaVeterinariosTropicos* , Recife-PE V.17,. 3, p.21- September/December 2014. ISSN 1415-6326.

BLUMAN, S. The horseindustrybythenumbers . 2017. Ride WithEquo . Available at: < <https://www.ridewithequo.com/blog/the-horse-ndustry-by-the-numbers>>. Accessed on: October 30, 2017.

CAIADO et al, 2017. Use of Long-Acting Progesterone and Inovulation of Mares on the Second Day After Ovulation. *Minutes BiomedicaBrasiliensia* / Volume 3/ nº 1/ June 2012.

CAIADO, JRC; FONSECA, FA; SILVA, JFS et al. Application of flunixinneoglumine before non-surgical embryo transfer in Mangalarga Marchador mares. *Brazilian Journal of Veterinary Sciences*, v.12, n.1-3, p.11-15, 2005

CNA Confederation of Agriculture and Livestock of Brazil. Study of the horse agribusiness complex. CEPEA/ESALQ/USP, p.1-17, Piracicaba, 2006 .

CNA Confederation of Agriculture and Livestock of Brazil. Study of the horse agribusiness complex. CEPEA/ESALQ/USP, p.1-17, Piracicaba, 2010 .

DIAS, D. Horses move R\$16 billion per year. Find out how you can profit. 2016. Rural Channel. Available at: < <http://blogs.canalrural.com.br/danieldias/2016/03/22/oagronegocio-equino-jamovimenta-r15-bi-por-ano-saiba-como-funciona-este-segmentoe-how-you-can-profit-from-horses/>>. Accessed on: October 28, 2017.

DITTRICH, JR Relationships between pasture structure and selectivity of grazing horses . 2010. 77f. Thesis (Doctorate in Agronomy) - Federal University of Paraná, 2001.

DINIZ, FH Ultrasonography in the evaluation of follicular dynamics and uterine texture in mares used in artificial insemination programs. FEDERAL UNIVERSITY OF CAMPINA GRANDE, CAMPUS DE PATOS – PB. 30 P. 2011.

FARIA, DR & GRADELA A, 2010. Hormone therapy applied to equine gynecology . Rev. Brazil play _ Anim., Belo Horizonte, v.34, n.2, p.114-122, abr./jun. 2010. Available at www.cbra.org.br

FARIAS, LD et al 2016. Ovulation induction in mares: a review. Rev. Brazil play _ Anim., Belo Horizonte, v.40, n.1, p.17-21, jan./mar. 2016. Available at www.cbra.org.br

FAO food andAgricultureOrganization . Live Animal Statistics 2009. Brazilian agribusiness statistics notebook. Inter-American Institute for Cooperation on Agriculture – IICA, Brasilia, 2009

FAOSTAT. Food andAgricultureOrganizationofthe United Nations. World horsepopulation estimated at 58 million. Horse Talk. New Zealand, 2007.

FLEURY, JJ Harvest day on equine embryo recovery rate at a commercial embryo transfer center. Arch Fac. vet UFRGS, v.26, p.268, 1991.

SOURCES. RS et al. Treatment of Embryo Receiving Mares Aiming at Use on the Second Post-Ovulation Day. Brazilian Journal of Animal Science. V.36, no.2, p.360-368, 2007 Print ISSN: 1516-3598.

FRAZÃO rcra, **Estrous Cycle and Hormone Therapy Applied to Equine Reproduction: literature review** 2017. Course Completion Work (Veterinary Medicine) Centro Universitário de Formiga - UNIFOR MG.

GRANDELA A. et al. Hormonotherapy applied to equine gynecology. Rev. Brazil play _ Anim., Belo Horizonte, v.34, n.2, p.114-122, abr./jun. 2010. Available at www.cbra.org.br.

GINTHER, OJ Embryonicloss in mares: Incidence, time of occurrence and hormonal involvement. Theriogenology, v.23, p.77-83, 1985.

HAFEZ, ESE; HAFEZ, B. **Animal reproduction. 7th ed. Sao Paulo: Manole, 2004.**
HINRICHS K, Sertich PL, Palmer E, Kenney RM. Establishmentandmaintenanceofpregnancyafterembryotransfer in ovariectomized mares treatedwithprogesterone . J ReprodFertil . 1987;80(2):395-401. <http://dx.doi.org/10.1530/jrf.0.0800395>

HUGHES. JP at. al. The OestrousCycleof The Mare And Its UterineControl . September 1977.

IBGE Brazilian Institute of Geography and Statistics. Number of herds by type of herd. 2016. Available at: <https://serieestatisticas.ibge.gov.br/series.aspx?vcodigo=PPM01> . Accessed on: October 17, 2017.

JACOB JCF et al. Effect of embryo age and recipient synchrony on pregnancy rates in a commercial equine embryo transfer program . *Theriogenology* , Stoneham , v. 77, no. 6, p. 1159-1166 , Apr. 2012

JUNIOR, José Antônio Dell'Aqua . et al. Embryo Transfer In Anovulatory Recipient Mares. *Rev. Med. Vet . Bogotá (Colombia)* N°33. June 2017. ISSN 0122-9354

LEY, William B., 2013 *Reproduction in Mares for Equine Veterinarians*. – Sao Paulo, Rock . , pp. 48-160.

LIMA, EA, BASSO, AF , ALBUQUERQUE FT 2017. *Gynecological Examination and Reproductive Monitoring in Mares*

MAP _ Ministry of Agriculture, Livestock and Supply. 2016. Review of the Study of the Horse Agribusiness Complex Available at <http://www.agricultura.gov.br/assuntos/camaras> - [accessed : Nov 18 2018].

MCKINNON AO; CARNEVALE, IN *Ultrasonography* . In: MCKINNON, Angus O.; VOSS, James L. *Equine reproduction* . Philadelphia, London, USA: Lea & Febiger , 1993.

MONTEIRO, Rodrigo Alves. USE OF PROGESTERONE IN EQUINE EMBRYO RECEPTORS. 2016. 39 f. Monograph- (Graduate in Veterinary Medicine) Faculdade de Jaguariúna Instituto Brasileiro de Veterinária- IBVT 2016.

NETO IVO , *New Hormonal Protocols for Fixed-Time Equine Embryo Transfer* 2017. 49 f Dissertation (Master's in Veterinary Medicine) Faculty of Veterinary Medicine and Animal Science, Universidade Estadual Paulista, Botucatu.

ROCHA FILHO, AN; BAD PERSON; GIOSO, MM; ALVARENGA, MA *Transfer of equine embryos into anovulatory recipients supplemented with short acting progesterone* . *Animal Reproduction*, v.1, n.1, p.91-95, 2004.

SAMPER JC, Jensen S., Sergeant J. & Estrada A. Timing of induction of ovulation in mares treated with ovuplant or chorulon . *Journal of Equine Veterinary Science*, 22:320-323, 2002.

SILVA, Artur George Pereira Ferreira., 2014. Completion of course work (Veterinary Medicine) - Federal University of Campina Grande, Center for Rural Health and Technology.

SILVA, Frederico Straggiotti . et al. Use of long-acting progesterone and inovation Mares on the Second Day After Ovulation . Brazilian Biomedicine. North Fluminense State University. Volume 3. n1. June 2012. ISSN:2236-0867.

SILVA, Elisa Sant'anna Monteiro. Effects of estradiol and progesterone administration on hormone concentration and endometrial expression of estrogen and progesterone receptors in acyclic recipient mares. 2015. 92f. Doctoral Thesis - (Doctorate in Veterinary Medicine). São Paulo State University "Júlio De Mesquita Filho". Botucatu, SP, 2015.

TRIDAPALI BR Pregnancy Rate in Cyclic and Acyclic Embryo Receiving Mares Treated with Long-Acting Progesterone.2018.Available at:en.scribd.com/doc/112071133. Accessed: November 2018

TESKE J., Embryo Transfer in Equines., 2010. Completion of Course Work (Veterinary Medicine) Federal University of Santa Catarina, Center for Rural Veterinary Sciences

TESKE J., Embryo Transfer in Equines., 2017. Completion of Course Work (Veterinary Medicine) Federal University of Santa Catarina, Center for Rural Veterinary Sciences

PEJOTIZATION: TRANSFORMATION OF THE EMPLOYEE INTO LEGAL ENTITY

A PEJOTIZAÇÃO: TRANSFORMAÇÃO DO EMPREGADO EM PESSOA JURÍDICA

Romeu Felix Menin Junior¹

Orcid: <https://orcid.org/0000-0003-0792-2158>

Lattes: <http://lattes.cnpq.br/3935598530515302>

Instituto Federal de Brasília, IFB, Brazil

E-mail: romeu2100@gmail.com

ABSTRACT:

The theme of this article is pejetização: Transforming the employee into a legal entity. He investigated the following problem: Pejetizar is to hire legal entities instead of natural persons through an autonomous service contract, does the worker end up being harmed? The objective of this work is: To identify and analyze what are the practical consequences for the worker's life, evaluating the legal limits of such an institute and its consequences when used for purposes of removing the incidence of labor legislation. This work is important for an operator of the Law, because it addresses the reflexes in the worker's life, evaluating the legal limits of such institute and its consequences when used for purposes of removing the incidence of labor legislation. This is a qualitative theoretical research lasting six months. It is concluded that this is a type of employment contract, which in the irregular version, besides constituting labor and social security fraud, constitutes a precarious type of work that does not present substantial gains for either side and, for these reasons, must be avoided.

KEYWORDS: Job. Labor Law. Work process. Pejetization. Right

RESUMO

O tema deste artigo é a pejetização: Transformação do empregado em pessoa jurídica. Investigou o seguinte problema: Pejetizar é contratar pessoas jurídicas no lugar de pessoas físicas mediante um contrato de prestação de serviços autônomos, o trabalhador acaba sendo prejudicado? O objetivo deste trabalho é: Identificar e analisar quais são as consequências práticas para a vida do trabalhador, avaliando os limites legais de tal instituto e suas consequências quando utilizado para fins de afastar a incidência da legislação trabalhista. Este trabalho é importante para um operador do Direito, pois aborda os reflexos na vida do trabalhador, avaliando os limites legais de tal instituto e suas consequências quando utilizado para fins de

¹Specialist in Labor Law, Tax Law, Methodology for Teaching History and Geography. Student of Geography and Environmental Control. Bachelor of Laws and Technologist in Environmental management.

afastar a incidência da legislação trabalhista. Trata-se de uma pesquisa qualitativa teórica com duração de seis meses. Conclui-se que se trata de uma modalidade de contrato de trabalho, que na versão irregular, além de constituir uma fraude trabalhista e previdenciária, constitui uma modalidade precária de trabalho que não apresenta ganhos substanciais para nenhum dos lados e, por estas razões, deve ser evitada.

PALAVRAS-CHAVE: Trabalho. Direito do Trabalho. Processo do trabalho. Pejotização. Direito.

INTRODUCTION

Labor Law has solid foundations, either in the Constitution (Brasil, 1988) or in the Consolidation of Labor Laws - CLT (Brasil, 1943) or in other legal diplomas that guide the matter. However, as in other areas of the social sciences, Law is not static, it is a dynamic science. All the ramifications of Law undergo, every day, small mutations whose genesis is at the core of society itself.

Modern man needs a job or a profession to survive, in general terms, this individual will receive a fixed salary in exchange for accepting to receive technical orders regarding his production or the individual earns his earnings by providing a service to individuals or to one or more companies. The first case is subject to labor laws and the second to the Civil Code (Brasil, 2002) which governs service provision contracts.

However, in recent years there has been a different phenomenon in the Brazilian labor market, involving a more careful analysis of Labor Law operators. Companies have sought to hire labor without paying their social charges, guiding the worker to constitute an individual company, legal entity and thus, contracting the provision of services from the company of this worker. Once the contract is formalized, the contracting company, when conditioning a contractor to comply with orders from hierarchical superiors, working hours, and all other attributes constituted as worked by the consolidation of labor laws, why aren't they? It is, therefore, a fraudulent simulation to mischaracterize the employment relationship, representing a modern form of precarious work.

This phenomenon received the name of pejotization, due to the demand of the companies for the hiring of manpower through legal entity - PJ. By hiring workers as companies, these employers believe they are evading the legislation, not creating an employment relationship or tax obligations. In general, these same employers close a contract with remuneration based on a fixed part and a variable part, forcing the worker to work 10, 12 to 15 hours a day, under the false argument of being an agreement, which in principle is good for the worker, because, in general, considerable and encouraging remuneration values are earned. However, in this type of service provision, neither labor rights nor Social Security rights are guaranteed.

The hypothesis raised in the face of the problem in question was the exploitation in a more perverse way, where employers condition the maintenance of the employee to the previous dismissal of the old employment contract and new contracting under

the pejotized model . The worker feels coerced, as he needs income to survive and ends up consenting to this practice. He believes, at first, to have been a valid alternative, but over time he begins to perceive the loss of quality of life. Generally, after being hired as a self-employed service provider, he ends up accepting the goals and the increase in the workload, subjecting himself to strict time and subordination controls, giving up the rights and guarantees that he would have if he were an employee. Thus, the present research work addresses the issue of pejotization and its implications in the world of Law. Intending to know the differences and similarities between the CLT employee and the self-employed, the consequences of this hiring, for the employer and the employee, as well as to understand the threshold between legal and illegal in this area (PEREIRA, 2019b, p.237; DELGADO, 2019 , p.438).

The employment relationship encompasses several types of legal situations involving the workforce, such as self-employed, temporary, casual and employees. However, the vast majority of employment contracts presuppose an employment relationship. The employment relationship, therefore, is a species arising from the employment relationship genre, and its legal basis is included in the Consolidation of Labor Laws. The employment relationship is a result of the evolution of labor legislation. Labor Law has its origins in the unfriendly coexistence between the entrepreneur capitalist and the worker, who sells his work force. It emerged as an instrument to normalize and regulate this necessary interaction between employer and employee, between capital and labor (CISNEIROS, 2016, p.40; DELGADO, 2016, p.87; OLIVEIRA, 2016, p.4).

The general objective of this work is to demonstrate having a solid research on the institute of the so-called pejotization . Pejotizar is the concept of hiring legal entities instead of individuals, on the pretext that facilitates the employer to get rid of labor and/or tax actions, through a contract for the provision of autonomous services, so that, as the worker claims, according to the employer , earn to work, without any assurance basis. This article will demonstrate how this understanding is seen by the final courts and how the doctrine ensures this false security or imposition of the employer on the employee, the most fragile part of this agreement. In this way, the importance of this research for science and society is to be able to understand in a solid and founded way the elements so harmful to the worker that in an almost coercive way the employer forces him to change, based on jurisprudential and doctrinal basis, the vision on the respective theme.

Since the so-called development of the manufacturing environment, the formation of unions and improvements in the living conditions of workers, made possible the materialization of gradual improvements in the employment and salary relations of workers. With the passage of time, legislations have emerged establishing assuring relationships between the capital and the workforce. The employment relationship is a consequence of this change in the relationship between capital and work. The employment relationship is based on a contract of will between the employee and the employer, from which the employee starts to have an obligatory, employment relationship with the employer, defined by the legal subordination to the

individual employee's personality, non-contingency and by onerousness. the employee is the individual who provides services of a continuous nature to the employer; the employee is the subject of the employment relationship and not the object. In order for it to be listed, it is mandatory to have all the requirements or elements: an individual who, with personality and intention of employment, works submissively and not occasionally for others, from whom he receives remuneration (CISNEIROS, 2016, p.42 ; MARTINS, 2012, p.144; NASCIMENTO, 2011, p.645).

The Specific Objectives of this work are: To present the employment relationship, its legal basis, requirements and its characteristics as well as the dualistic relationship between subordination and autonomy, based on the doctrine and jurisprudence regarding the employment relationship. The self-employment relationship, its legal basis, characteristics and differentiation in relation to the employment relationship, presenting some numbers of the self-employment market in Brazil and its evolution after the implementation of micro entrepreneurship in 2008. At the end, some judgments will be presented with the position of the Courts regarding the characterization of the autonomous work relationship. Finally, the phenomenon of pejotization in the Brazilian labor market, its definition, origins, how it is constituted in the labor market and its practical consequences for the worker and reflexes in the legal world will be presented, based on the demonstration from the judgments of the Labor Courts on the subject, showing the already consolidated position regarding this type of contract.

The main elements of the employment relationship generated by the employment contract are: a) Personality, the employee has a legal duty to provide services for the benefit of others personally; b) The non-eventual nature of the service, that is, it must be necessary for the employer's normal activity; c) The remuneration for the work to be performed by the employee; d) The legal subordination of the provision of services to the employer; e) The need for the contract to be signed between the employer (BARROS, 2016, p.147; DELGADO, 2016, p.299).

Already raising the issue of non-event, the work must be of a continuous nature, provided daily, with the regular breaks provided for by law. It cannot be a one-off, one-time job. The financial contribution is another characterizing item, since the onerosity is the counterpart of the work delivered to the employer. With regard to the personal provision of services, it refers to the fact that the employee cannot be represented by third parties, subcontract, under penalty of the latter being configured as an employee. Subordination is the main feature of the employment relationship. It is so important that it deserves to be studied in a topic of its own. However, the employment relationship will only be configured if all the characterizing elements are present (LEITE. 2019. p.114).

For the elaboration of this article, the type of research used was the descriptive bibliography, having as a research method the treatment of qualitative data of a secondary nature, using as a research instrument books, doctrine and jurisprudence, articles and theses defended from the keywords: Work; Labor Law; Work process; Pejotization ; Right. Being made the analysis regarding the Labor Rights; the

understanding defended by the Labor Courts, Regional Courts and the Superior Labor Court. The point of view of those defending what results from this employer's obligation on the employee and the employee's claims to the employer. This literature review research is expected to take five months. In the first and second months, a survey of the theoretical framework was carried out; in the third and fourth month, the literature review; in the fifth month, the elaboration of the pre-textual and post-textual elements that make up the entire work.

As Gonçalves (2019a) adds, the literature review consists of the perspective of bringing public bibliographic data as an instrument of reflection to a subject that is intended to debate or dialogue. A qualitative research treats the information collected with an analysis of all the nuances allowed in it (GONÇALVES, 2019b).

PEJOTIZATION: TRANSFORMATION OF THE EMPLOYEE INTO LEGAL ENTITY

Labor Law is a product of capitalism, linked to the historical development of this capital process, certifying to it economic, social and civilizational distortions and the essential binding of authority that its economic dynamics generates in the sphere of civil society, especially in the establishment and in the company. . The evolution of the mode of production, the creation of unions and improvements in the living conditions of workers, made it possible to incorporate gradual improvements in working conditions and workers' remuneration. Gradually, legislations emerged establishing safer and longer-lasting relationships between capital and the workforce. The employment relationship is a result of this evolution of the relationship between capital and work (DELGADO, 2019, p.104; OLIVEIRA, 2016, p.6).

Since the development of the mode of production, the creation of unions and improvements in the living conditions of workers, it has made possible the incorporation of gradual improvements in the deplorable working conditions and wages of workers. Gradually, legislations emerged, establishing more secure and lasting relationships through capital and work. The employment relationship is a result of this evolution of relationships through capital and work (BARROS, 2020 p.618).

The employee is the natural person who provides services of a continuous nature to the employer; under his subordination, upon payment of salary and in a personal manner. The employee is the subject of the employment relationship and not the object. For the employment relationship to be configured, all requirements or characterizing elements will need to be present . An employee is defined as a natural person who, with the personality and spirit of employment, works in a subordinate manner and not occasionally for others, from whom he receives a salary. (MARTINS, 2012, p.144; NASCIMENTO, 2011, p.645).

The Consolidation of Labor Laws - CLT (BRASIL, 1943), provides in its second and third articles that the contractual employment relationship will be between the employee, individual and employer. It is responsible for the main elements of the employment relationship generated by the employment contract. According to Alice Monteiro Barros (2016, p.147), the form of remuneration in cash is essential as a

counter-proposal to the services provided to the worker towards the employer; in a subordinate way; in his personality, not allowing himself to be given in the form of others; this provision of services is not occasional, that is, it continues.

Adds Maurício Godinho Delgado (2016, p.299) the need for the contract to be signed between the employer, an individual or legal entity, is necessarily an employee, an individual. There are necessarily five components of the legal relationship, the provision of services must be provided from a counterparty, paid in cash; from this provision of services offered, obeying the hierarchy of subordination of the worker to the employer in a personal and not occasional way.

Regarding the employee necessarily being an individual, Martins (2012, p.139) justifies it based on labor legislation, where there is no provision for an employment contract with a legal entity or with animals. As for non-events, the work must be of a continuous nature, provided daily, with the regular breaks provided for by law. It cannot be a one-off, one-time job. The financial contribution is another characterizing item, since the onerosity is the counterpart of the work delivered to the employer. With regard to the personal provision of services, it refers to the fact that the employee cannot be represented by subcontracting third parties, due to the possibility of the latter being an employee.

Subordination is the main feature of the employment relationship. It is so important that it deserves to be studied in a topic of its own. However, the employment relationship will only be configured if all the characterizing elements are present. The employment relationship is a kind of form of employment relationship and, in order to be characterized, it must, indispensably, be constant and provided personally by an individual subject to subordination, existence burdensome to the employer, who will repay the work together with a decent salary to the contractual employee. . (DELGADO, 2019, p.106)

Entering the idea of subordination, it takes us directly to the idea of a relationship of obedience, hierarchy and command. In the employment relationship, regulated by the Consolidation of Labor Laws, it is probably the most important characteristic for the purposes of this study. Subordination as a criterion for distinguishing different employment contracts emerged in the mid-20th century. XIX and can be analyzed in different aspects, of which, technical, economic, social and legal. The criterion of the employee's technical subordination to the employer, or to the legal representative, is attributed to the Society for Legislative Studies of France and this same criterion is decisive in the characterization of the employment relationship (BARROS, 2016, p.176).

In the lessons of the philosopher of Labor Law Amauri Mascaro Nascimento (2011, p.657.), subordination is not conceptualized by Brazilian legislation, and the interpreter must resort to comparative law, doctrine and jurisprudence. The author indicates Italian civil law as the precursor of the conceptualization of subordination, through the works of Lodovico Barassi (1901), Vincenzo Cassi (1947) and Domenico Napoletano (1955) who, according to him, contributed decisively to the insertion of this concept in the body of the Peninsular Civil Code. In addition, the author warns of the

importance of characterizing subordination for the purposes to which the Law is interested, as it can present several facets.

What is important is the subordination character related to the way activities are carried out, which he describes from an objective prism of subordination. As for subjection, in the sense of dependence, it is believed that the Law has long surpassed this understanding, and is no longer used for the purpose of characterizing the employment relationship. In Labor Law, subordination must be interpreted in its objective sense, under the way of carrying out the work and not on the person of the worker. Thus, the author points out three dimensions that must be compared and analyzed together, as they complement each other, they are: the classic dimension, in terms of the power of business management in terms of the way in which its work is performed; objective, integration of the worker in the purposes and objectives of the service taker's enterprise and the structural dimension, which is the reception of the dynamics of organization and functioning imposed by the employer (DELGADO, 2016, p.304; NASCIMENTO, 2016, p.614) .

However, the practical verification of this characterization is not so simple. Labor relations are dynamic and involve several factors that, sometimes, easily confuse even the magistrates, for more and more directives of ramifications of these legal subordinations. What must be imposed is the so-called legal subordination, that is, subordination imposed by law, since it is rare for the employee to be superior to the employer, nor for the patrimony of one being superior to the other. What unites them is the Legal contract, subordination is the key element of the employment relationship, an essential characteristic for the correct framing of the employment situation that may arise in Court (CISNEIROS, 2016, p.40).

Dichotomy concerns the two sides of the same situation, it is represented by a division of a concept into two that, although complementary, are unequal among themselves, since they extend and complement the meaning of the first. According to the teachings of Martins (2012, p.140), in both situations, with subordination or with autonomy, the worker is subject to a working relationship, subordination is the responsibility acquired by the employee at the behest of the employer, as this the first contracted with the second, acting firmly in the legal business, which is the object of the employment contract.

Subordination is a characteristic arising from the employee-employer relationship itself, an essential requirement for the characterization of the employment relationship in employment contracts, the importance of this link is such that there have already been jurists in Italy who characterize the contractual employment relationship only with this factual element, regardless of the type of labor agreement or prior contract. Resulting from this dichotomy between subordination and autonomy; the so-called self-employed work which is characterized by the performance of the office without the result of subordination coming from the employer. Autonomy is the antithetical concept to that of subordination, when, as a result of subordination, the central direction of the daily way of providing services is transferred to the borrower (DELGADO, 2016, p.310).

As a result of this impasse between freedom and subordination, Italian doctrine has already created a modality of employment relationship: para-subordinate workers, this modality represents those who, although not directly subordinated, result from a continuous and coordinated collaboration with the company and, for factual reasons and economic unevenness, they contract their services with the latter under conditions of inferiority, under the form of civil contracts (BARROS, 2016, p.190).

The judicially disposed cases for the characterization of the employment relationship, as the most important authors have shown us to the different facets of subordination; self-employed is someone who works for himself and earns profits for himself, making this activity his profession, he can be a dentist, lawyer, doctor, etc. anyone who provides service within a company, meeting its purpose and creating the means to obtain profit in favor of the company, is employed, under the terms of art. 3 of the CLT (BRAZIL, 2000, TRT/SP).

The characteristics that make up the founding element for the recognition of the employment relationship, when the autonomy in the provision of the service is not verified in the case file, coming to be considered the activity that was within the dynamic structure of the company, emerging what is conventionally called in the doctrine of structural subordination, there is no way to recognize the existence of autonomous work (BRASIL, 2011, TRT/DF-TO).

A fundamental part of all judgments is the analysis of the characterization requirements. The doctrine, as a founding part of article 3 of the CLT, establishes the following requirements for proof of employment relationship: personality, habituality, onerosity and legal subordination, and the absence of any of these requirements results in the de-characterization of the employment relationship, when non-founders result in non-recognition; Absence of requirements characterizing the employment relationship, in the fateful case presented to a cooperative (BRASIL, 2015a, TRT/SP).

Not all employment relationships constitute an employment relationship. This is a special relationship, in which subordination is the main feature, but not the only one. The employee is necessarily a natural person, irreplaceable, compliant with schedules, with regularity and must contribute to the benefit of the employer. A fundamental part of the income from the employment relationship, which remains proven, are the various benefits, such as unemployment insurance, maternity leave, paternity leave, 13th salary, vacation, remuneration plus 1/3 of vacation, Severance Indemnity Fund - FGTS among other benefits that may be agreed with employers, such as doctors and assistance (DELGADO, 2019, p.435; PEREIRA, 2019a, p.65; SUSSEKIND, 2009, p.2) The world has changed and the relationships of work too. Factories no longer demand hundreds, thousands of employees in different shifts and in almost unsanitary conditions such as those faced by workers at the end of the 19th century. nineteenth and early twentieth century. Likewise, they no longer provide the stability and benefits of the 60s and 70s of the last century, the height of social rights. Some crafts no longer exist in our times and other new ones are about to emerge for the next generations.

In this sense, the performance of the self-employed in the legal world is based on a few extracts from paragraphs of social security legislation, articles of service

provision and contract work in the civil code (BRASIL, 2002) and by the always necessary concepts of the indoctrinators. The classic self-employed worker, referenced in labor law manuals, is increasingly rare. It is not always easy to legally characterize the employment relationship. For these cases, the conceptualizations of the indoctrinators are valuable and important resources. Through them, Labor Law operators subsidize numerous decisions, sentences and rulings across the country, clearly distinguishing the different types of employment relationship presented to the dispute.

The self-employed worker, does not find shelter in the Consolidation of Labor Laws, corresponds to one of the modalities of the relationship contemplated by art. 114, I, of the Constitution (BRASIL, 1988). In this sense, the self-employed worker is necessarily a natural person, and cannot constitute a legal person. The self-employment contract provides for regularity, continuity, allowing more than one contractor to perform their work and not having a subordinate relationship, assuming the risks arising from their activity on their own. What is relevant is that the work is performed by an individual and practiced without the characteristics of the employment relationship, whose elements are set out in arts . 2 and 3 of the CLT (MARTINS, 2012, p.159; SUSSEKIND, 2009, p.2).

What comes to be consubstantially is the issue of subordination and the autonomous personality of the employee, since the self-employed worker is that individual, provider of professional services who does not have a subordination bond. He continues his statement by comparing the semantics of the word autonomous, which has a diametrically opposite meaning to subordination. The self-employed person acts as his own boss, without submission to the employer's powers of command and, therefore, is not subject to hierarchical subordination. According to which the self-employed worker retains the freedom of initiative, being responsible for managing his own activity and, consequently, bearing the risks arising from his activity at his own risk, through contract and receipt, not being subject to the workload or subordination (DELGADO, 2016, p.318; BARROS, 2016, p.148; NASCIMENTO, 2011, p.1032).

It is noteworthy that it is important to emphasize that the self-employed worker, for the purposes of labor legislation, is a natural person, and cannot under any circumstances form a company, since - in this way - it excludes the incidence of protective rules and the competence of the Specialized Justice. Also because its legal figure still exists and is recognized in social security legislation and in the Civil Code.

In Brazil there is no unified legislation providing for and regulating the activity of the self-employed, as already exists in Spain. However, its activity is supported by civil legislation and social security legislation, with which it is an individual contributor. The self-employed person finds refuge in articles 593 to 609, which regulate the service provision contract. Also in the following articles 610 to 626, referring to the construction contract. It is the wording of art. 593:

Art. 593. The provision of service, which is not subject to labor laws or special law, will be governed by the provisions of this Chapter.

In the social security legislation, the self-employed person is considered an individual taxpayer, being supported by Laws nº 8.212/91 and 8.213/91, whose regulation and new classification were recently published, in the following terms:

Entrepreneurs, self-employed and similar workers are called individual contributors for social security purposes, while those who do not carry out remunerated activities are called optional insured persons. Interministerial Ordinance MF/MPS No. 1/2016 - DOU 1.11.2016. With deletions.

The self-employed, by its nature, is a natural person. However, it is important to remember, despite these established laws, that there is a new modality of service providers in general, equally supported by social security legislation and free to claim their rights in the Labor Court: they are the individual microentrepreneurs. With the publication of Complementary Law nº 123 (BRASIL, 2006), the individual microentrepreneur was created. It is a joint effort of several government agencies, supported by their own legislation, whose objective is to legalize the activity of various services and sources of income: on their own, such as: street vendors, street vendors, artisans, elderly caregivers, painters, gardeners, manicurists, masseurs, computer technicians, cell phone maintenance technicians, among many others. It is the worker who, on his own account or with at most one employee, can manage his own company and enjoy tax and social security benefits, limited to a profit of R\$60,000 per year.

This law also facilitated access to the creation of the National Register of Legal Entities - CNPJ, that is, it facilitated the establishment of a legal entity. In the explanatory memorandum EM nº 13 /MF/MDIC/MPS (BRAZIL, 2008) of the inclusion of the Individual Microentrepreneur as a contributor and insured of the INSS. According to data available on the Portal of the Support Service for Micro and Small Enterprises, SEBRAE portal (BRAZIL, 2015), there are currently around 5.5 million registered individual microentrepreneurs in Brazil. For the year 2022, the estimate is that this number will reach 8.8 million. It is a way of legalizing thousands of activities that, in practice, exist, but that were unsupported by Social Security and, in a way, illegal. They are popularly called self-employed, and can contribute to social security and have the right to old-age retirement, disability retirement and maternity pay. In addition, the family of this insured person will be entitled to a pension for death and reclusion aid.

Abroad, some countries already know a new type of self-employed worker, Spanish legislation provides for the figure of the self-employed in the labor market, more than 10% of the Spanish workforce is self-employed. With the entry into force of Spanish Law No. 20, of 2007, these self-employed people were separated into classic self-employed and economically dependent self-employed. For them, the law does not preclude subordination and requires personhood. It is an innovation that reflects a

regulation of pre-existing practical activities and that can become a reality in more countries around the world (NASCIMENTO, 2011, p.1027).

The importance of the Italian doctrine in these cases for which the self-employed is subordinate are those intellectual workers or not, who eventually submit to work not necessarily subordinated without the employment relationship of the peninsular legislation, however with some important rights duly recognized, proposed a third genre, parasubordinate work (BARROS, 2016, p.198).

In relation to self-employment, its characterization occurs basically in relation to flexible working hours, non-subordination in the execution of the activity, and in obtaining profit for itself, performing its services at its own risk, being able to perform its services to several contractors, conceptualization is in transition and the threshold is quite flexible, and it is up to the magistrate to decide based on the specific case. If the claimant worked autonomously, directing his own activity and assuming the risk of the business, he cannot be considered a CLT employee (BRASIL, 2015, TRT/RJ). The evidence set evidences self-employment, with no obligation to comply with schedules or frequency, or production, without a fixed salary. Such conditions are not consistent with the employment relationship, due to the absence of legal subordination. (BRAZIL, 2015b, TRT/SP).

Thus, self-employment is considered in its essence. The Courts observe the characterizing elements prescribed in the doctrine, as there is no specific law for each type of autonomous work. It is a differentiated activity, for which there is no subordination and the worker assumes the risk of his own business. Nowadays, the question of the individual or the legal entity is little questioned when analyzing the facts. According to the general principles of Labor Law, when the employment relationship is verified in any legal employment relationship, the magistrates deconstitute the contract and enforce the labor law, regardless of the terms or the contractual form adopted. (LEITE, 2019, p.21; DELGADO, 2019, p.435).

This is the case of the Decision in which Judge Miriam Pacheco, from the Regional Labor Court of the 1st Region, during an analysis of the concrete case, found the unequivocal presence of the qualifying elements of the employment relationship, imposing the deconstitution of the preexisting contract: the treatments given to those hired under the CLT regime and the plaintiff, hired through a legal entity, with regard to the working day, the non-event, the subordination, present the onerousness, the personality, there is no justification for the difference in the means of hiring. What is verified is a distortion of the purposes of the contract entered into with the author, serving only as a mask to hide the real employment relationship (BRASIL, 2013, TRT/RJ).

The simple claim in court of a service provision contract, even if added to the case file, does not remove the special rule imposed by the content of article 9 of the Consolidation of Labor Laws. Therefore, the self-employed is that service provider that does not submit to the orders and control of the contracting party, nor does it contribute to the contracting party's profit. It specifically performs the work for which it was hired. He is responsible for his own service, earning a profit for himself, and therefore does

not fall under the control of hours, point card, subordination and monthly salary, characteristics, as seen above, typical of the employment relationship.

For the CLT, as provided for in article 3, every employee is necessarily a natural person. However, a new modality of illegal hiring of labor has been frequently verified in our Courts. It's called pejotization . The term pejotization comes, being one of the most frequent modalities of contemporary fraud in the labor field, representing an affront to the labor rights listed in the Federal Constitution and CLT, since many of them are not complied with (BRASIL, 2016, TRT/GO) .

The origin of the term is not known for sure, however it is a very well-known expression by law operators. The term pejotization is a neologism originated from the acronym PJ, which is used to designate the expression legal entity. It is the use of this term by legal operators that has become popular and the expression is generally used to define and characterize the illegal form that the service provision contract can take. this is an artifice used in practice, where the job market selects people with the desired profile for the available vacancy and, at the time of contracting, the employer requires the worker to set up an individual company. Thus, the candidate ends up facing a relatively attractive payment and consents to open an individual company in his name and formalize a service provision contract with the employer, even issuing invoices to receive the contracted amount (STANDER; SANTOS, 2008, p.69; CARVALHO, 2010, p.153).

It is important to highlight that it is not a matter of understanding as illegal any and all hiring of legal entities. In principle, there is no irregularity in hiring a legal entity to provide services. This is relatively common in technology areas, communication vehicles or offices that provide accounting services, fraud can occur when this contract is used to divert the incidence of labor legislation, in a way that does not guarantee the employee's rights, making it illegal , which may be questioned in court. Therefore, it is important to know the characterization of illegal hiring, its consequences and the current position of the Magistrates and Courts. The phenomenon of subcontracting legal entities constitutes true procedural fraud, distorting the very essence of labor law, which is worker protection (CISNEIROS, 2016, p.42; DELGADO, 2016, p.303).

The characterization is not that easy, as there are categories of self-employed professionals who can be freely hired by employers, and may even maintain the employment relationship with only one contractor, as is the classic case of self-employed commercial representatives. In this sense, it is important to pay attention to the requirements that characterize the employment relationship, and these assumptions will lead the magistrate and other legal operators if the employment relationship is discussed in court. The main characteristics are those previously studied, which distinguish the CLT employee from other labor actors: A) Obligation of the individual; B) Personality; C) Non-event; D) Onerosity and E) Subordination (DELGADO, 2016, p.299).

Regarding the typical professions of the self-employed and service providers, individuals or legal entities, the recognition of the employment relationship may also be present. In this sense, I cite Review Appeal of the Superior Labor Court No. 650-

80.2010.5.03.0004, by the Rapporteurship of the Convened Judge Flavio Siringela , whose summary has the following content:

MAGAZINE RESOURCE. CONTRACTING THE PROVISION OF SERVICES. COMPUTER AREA. CONSTITUTION OF A LEGAL ENTITY. NULLITY. CHARACTERIZATION OF THE EMPLOYMENT LINK. The constitution of a legal entity by the claimant does not have the power, by itself, to rule out the characterization of the employment relationship, once the assumptions contained in art. 3 of the CLT. For this reason, it is appropriate, in such a case, in light of the principle of primacy of reality, the nullity of the contract for the provision of services art. 9 of the CLT and, therefore, the recognition of the employment relationship with the alleged service taker. No violation of arts . 110, 113 and 114 of the Brazilian Civil Code. precedents. DJe 02/24/2012

In the same vein, a recent judgment of the Regional Labor Court of the 3rd Region/MG, in the records of Ordinary Appeal No. 10218- 41.2013.5.03.0061, reported by the Summoned Judge Antônio Vasconcellos, whose summary reads as follows:

AUTONOMOUS COMMERCIAL REPRESENTATIVE NULLITY. RECOGNIZED EMPLOYMENT RELATIONSHIP. The termination of the employment relationship with the continuity of the provision of services, through the constitution of a legal entity, suggests fraud, a circumstance that adds to the proven and decisive factual elements in the configuration of the employment contract. Once the services have been provided in the same manner performed by the employed sellers, subject to meeting targets and also justifications for non-compliance with them, attendance at meetings, issuance of reports, it is necessary to recognize the nullity of the autonomous commercial representation contract, under the terms of art. 9 of the CLT. DJe 09/09/2015 .

The pejotization has been unleashed a still recent invention in the legal world, it is important to emphasize that not so new yet ends up being assimilated with the institute of outsourcing since it has no similarities with outsourcing. In pejotization the contract is bilateral, in outsourcing it is trilateral. In outsourcing, there is subordination of the worker to the agent of the outsourced company, never to the contractor, as in pejotization . Through outsourcing, the worker maintains an employment relationship with the labor supply company, working on the premises of another borrowing company (CISNEIROS, 2016, p.56, JORGE NETO, 2019 p.41).

Outsourcing in the private sector emerged in our legislation with Law nº 6.019/74, the Temporary Work Act, enabling indirect hiring, through a specialized company, to replace workers and for some extraordinary services. Subsequently, Law No. 7,102/83 was published to enable the contracting of a service provider in the area of asset surveillance, to meet the demand of the banking sector. However, the impossibility of subordination or personality between the employee of the contractor

and the borrower, under the conduct of setting up an employment relationship, except in cases of hiring by the direct or foundational public administration, since the Federal Constitution of 1988 prevents hiring without a public tender, the that would prevent the link. Outsourcing began in the Public Sector, with Decree-Law No. 200/67 and later Law No. 5,645/70, which provided for outsourcing as a form of decentralization and debureaucratization of the Government. However, in the private sector, it cites the same two legal diplomas Laws nº 6.019/74 and 7.102/83 (DELGADO, 2016, p.491; STANDER; SANTOS, 2008, p.104).

Precedent nº 331 of the Superior Labor Court, published in 1993, established the limitations of outsourcing in Brazil. Currently, only property surveillance, conservation and cleaning services and functions not related to the companies' core activities can be outsourced. However, the Bill of Law of the Chamber of Deputies nº 4.330/04 is being processed in the National Congress, which gives legislative force to the text of Precedent nº 331 of the Superior Labor Court and expands the areas of outsourcing in the private sphere, making it possible to hire of an outsourced company in any technical area of the company. Outsourcing is a neologism foreign to Law, whose origins date back to scholars in the sciences of business administration, aiming to emphasize decentralized relationships within the organizational scope. It is a phenomenon by which the economic relationship of work is dissociated from the labor relationship that would correspond to it (DELGADO, 2016, p.487 ; PEREIRA, 2019a, p.67; SILVA, 2019, p.22).

The authors classify outsourcing as a modality of subcontracting, through an outsourced intermediary company, as they are configuring a trilateral relationship. It is important to know the limits that characterize the employment relationship, as the contracting company cannot impose subordination on the employees of the interposed company (NASCIMENTO, 2011, p.632; RALIN, 2019. p.26.).

Therefore, the significant difference between pejetization and outsourcing is the bilateral relationship of pejetization , which is called a service provision contract with the trilateral relationship characteristic of the outsourced company. Regarding the employment relationship, in none of the modalities can there be subordination of the contractor to the contractor.

Still a recent phenomenon in the Brazilian labor market, pejetization has been the subject of studies for at least a decade. It is believed that its popularization is due to the legal provision contained in article 129 of Law No. legal. The result of an alternative that avoided informality and unemployment, with the aim of promoting some sectors of the economy. However, for the author, this law made possible numerous dissimulations and frauds with the use of shell companies in the hiring of employees (NASCIMENTO, 2011, p.693).

Contracting companies started to encourage the renewal of contracts of old and new employees for this expedient, as if they were employees, exempting themselves from labor charges, circumventing the legislation and making the employment relationship precarious . To solve these cases of hiring employees via a simulating instrument of the false legal entity, the Labor Court, upon becoming aware, declares

the employment relationship based on art. 9 of the Consolidation of Labor Laws (DELGADO, 2019, p.439; PEREIRA, 2019a, p.68).

However, when the characteristics of the employment relationship take shape and stand out, the old employment relationship loses its validity and the employment relationship is mandatory. As a result, the contracting company will have to bear all legal charges arising from this disguised contract, to be calculated based on the values presented in the contractor's invoices (Žižek , 2017, p.42).

The term precariousness has been used to define loss of labor rights by the working class in recent decades. The expression has variants such as precarious work and precarious work , all equally accepted. Social science scholars believe that technological management associated with the flexibilization of labor laws may have contributed to this loss of working class rights over the last 40 years (MENIN JUNIOR. 2020, p.3; Žižek , 2013, p.24) .

For Maurício Godinho Delgado (2016, p.534), this precariousness is more evident with the subcontracting or outsourcing process, where workers are often subjected to perform the same tasks with different rights and guarantees. According to the author, it is important for society to create mechanisms and add improvements to avoid distortions in this field of labor relations.

Among the mechanisms, Delgado (2016, p.535) suggests the following: a) increase the concept of isonomy, providing the outsourced worker with the same transport services, cafeterias, medical and outpatient services as the borrowing company; b) set minimum capital limits for outsourcing companies, seeking effective economic aptitude; c) efficient guarantees of compliance with labor and social security legislation, establishing periodic inspections of legal payments and payment of salaries and other rights; d) attributing full effectiveness to the Clearance Certificate of Labor Debts, rejecting companies that renew the contract based on the need for capitalization to pay off previous debts.

Researcher Maria Amélia Lira de Carvalho (2010. p.153), in her master's thesis, identified the practice of pejetization in the medical field in the city of Salvador in 2009 and 2010, making an in-depth study of the professional's working condition physician in the state of Bahia. In her results, the researcher demonstrated the evident financial loss in the pejetization modality . Some labor calculations were presented that proved that despite the contracted values being inviting, it actually represents an immense financial disadvantage for the contractors. However, the vast majority of hospitals and clinics surveyed hired medical professionals in this modality, thus making work relationships precarious and overloading the health professional.

Regarding the precariousness of labor relations, this is an increasingly frequent finding worldwide. In Brazil, researchers José Dari Krein and Marcelo Weishaupt Proni , from the International Labor Organization – ILO (2010, p.9), believe that informality and precariousness of work are associated with two main factors: a) low economic environment and unstable growth; b) transformations of capitalism, changes in the role of the State and flexibilization of labor relations. Misappropriation of public resources can make important investments, both internal and external, unfeasible. It greatly

harms the private sector, as it ends up removing the possibilities of more and better jobs, preventing the maintenance of the social achievements acquired in the past. Finally, they warn about the importance of the Government establishing a reference that guarantees decent working conditions and social security for the informal. They claim that what is at stake is more than simple labor protection, it is the guarantee of the rights that underlie citizenship, and this failure on the part of government officials can lead to the compromise of the republican spirit and the democratic regime.

As previously studied, the Consolidation of Labor Laws was implemented in Brazil during the government of Getúlio Vargas, known as the father of the poor. With the country in rapid growth and development, it was common for the employment relationship to last for twenty or thirty years, as the company needed the employee's experience and dedication and the employee felt prestigious by the employer. However, this reality changed diametrically in the 80's/90's, forcing the worker to look for new ways to survive and support his family.

According to researchers Krein and Proni (2010, p.11), the informal market is the answer to the lack of placement in the formal market. Several atypical figures and forms of contracting appear such as: autonomous, cooperative, outsourced, pejotization, among others. The worker, when choosing to be hired as a legal entity, may be being deceived by the false idea of financial advantage, however, he will be helpless of his labor rights, among them: formal contract, Guarantee Fund for Time of Service - FGTS, Social Security, 13th salary, vacation, overtime, unemployment insurance, among others.

Illegal pejotization does not represent a viable alternative for employers who try to circumvent labor legislation. There is already consolidated case law in this regard. When the employment relationship is recognized, by virtue of the principle of the primacy of reality, the legal entity is dismantled and labor legislation takes over from the initial contract. The consequences for the service provider, the employer, are not always financially compensated.

Pejotization is conceptualized by some Labor Law scholars and operators as an illicit and precarious form of outsourcing, which can cause immense damage to both sides. Represents the by-product of the subcategory. In this sense, as legally responsible for the contract, the financial burden will be on the service taker, considered the direct beneficiary of this illicit contracting modality. In the eyes of the Superior Labor Court, this type of modality is also an illegal variant of outsourcing. It will be up to the magistrate of the Labor Court, at first, to declare the nullity of the contract signed between the parties and attribute to the existence of the employment relationship, with severance pay and other legal values to be calculated based on the amounts received by the worker. (BARROS, 2020 p.619).

Hiring a legal entity to provide services, as seen in this study, is not illegal. However, when coated with an illusory, fraudulent effect, with the sole purpose of covering up labor rights, it is illegal and must be fought (BRASIL, 2016, TRT/MG). Following this, the understanding adopted with primacy by the courts in related decisions, in cases asked to pejotization, as a kind of fraud to employment

relationships; pejotization as the relationship in which the use of legal entities is encouraged by the service taker, with the purpose of evading labor obligations and charges, and called in many jurisprudence as illicit outsourcing (BRASIL, 2015c, TRT/SP; 2009, TRT/BA; 2011, TRT/SP).

FINAL CONSIDERATIONS

Relations between capital and labor have never been smooth. Over the centuries, human society has moved between slavery, servitude, craft corporations, free workers, associated workers, contract workers, contract employees and, modernly, the precarious. As demonstrated in the article, Labor Law emerged precisely for the reason of this disparity of forces where, on the one hand, there is the worker, seller of his labor, and on the other, the capitalist. Nowadays, it is known that the capitalist entrepreneur is also at a disadvantage in the face of a hidden, lazy and demanding partner, who, through excessive taxation, demands from the capitalist an ever greater gain in productivity.

This permanent requirement, on all sides, makes work relationships a shaky environment. The work currently does not represent the model of twenty years ago, let alone more than seventy years ago, when the Consolidation of Labor Laws was approved. However, human needs are identical, perhaps expanded. In this sense, labor legislation, despite the changes, cannot escape its protective genesis. The worker will always be the least protected part of the relationship and, for this singular reason, deserves special attention.

Outsourcing, hiring the self-employed and hiring a company providing individual or corporate services are legal modalities and provided for in labor legislation. However, as seen in this study, the contractor cannot demand compensation from the contractor as if he were an employee. In legal cases, it is about hiring an individual company to provide services, without subordination and regular routine divided into schedule and scales. On the opposite side, as a result of necessity or dishonesty, the incidence of labor and social security legislation is removed, in order to hire more advantageous labor, opting to withdraw rights from its collaborators and employees. It is pejotization and its illegal side, disguised as an employment relationship.

When these work relationships do not achieve the expected goals or one of the parties feels harmed, they can appeal to the Labor Court. According to the expanded competence with the publication of Constitutional Amendment nº 45, once the employment relationship has been established, it is the competence of the Labor Court to appreciate the fact.

Labor Law, as the worker's *ultima ratio*, arises to analyze and impose protective legislation. In his jurisdictional activity, the Magistrate becomes aware of the contractual dimension, verifying factual inconsistencies, distortions and various simulations. If, during the examination of the facts, evidence is not provided that convinces the magistrate of the legality of the service provision contract, it will be de-characterized. Then, the general principles of Labor Law will be applied, converting the

provision of service into an employment relationship, with the employer having to bear the financial strain arising from this relationship. Fraudulent simulation is an illegal, immoral and reprehensible attitude, which in addition to harming the worker, ends up being very costly to the employer.

It is concluded that the pejotization institute as a fraudulent means of hiring work is not an intelligent solution on the part of the employer, since, in addition to a practice considered illegal, it will subject the borrower to the recognition of the employment relationship and financial expenses arising from the whole process. Likewise, for the professional, it is not interesting to remain in this modality, because as a legal entity it does not have social security rights, health, social security and social assistance. It is a type of employment contract, which in the irregular version, in addition to constituting a labor and social security fraud, constitutes a precarious type of work that does not present substantial gains for either side and, for these reasons, should be avoided.

It ends by attesting that the initial objectives proposed for this research were successfully achieved. It was possible to understand pejotization in Brazil and its legal implications. Finally, it is intended that this study motivates further research in the area, aiming to clarify and alert on the subject and, in a certain way, encourage debate and constant improvement of Labor Law.

REFERENCES .

BARROS, Alice Monteiro de. **Labor Law Course** . 10. ed. São Paulo: LTr , 2016.

BARROS, Alice Monteiro de. **Labor Law Course** . 15th ed. São Paulo: Saraiva Jur , 2020.

BRAZIL. **Constitution of the Federative Republic of Brazil of 1988** , Available at: <http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm>. Accessed on: 21 July. 2019

BRAZIL. **Law no. 10,406, of January 10, 2002** , Civil Code. Available at: <http://www.planalto.gov.br/ccivil_03/leis/2002/l10406.htm >. Accessed on: 21 July. 2019

BRAZIL. **Complementary Law no. 123, of December 14, 2006** . Establishes the National Statute of Microenterprises and Small Businesses. Available at: http://www.planalto.gov.br/ccivil_03/leis/lcp/lcp123.htm. Accessed on: 21 July. 2019

BRAZIL. **Decree-law no. 5,452, of May 1, 1943** . Approves the Consolidation of Labor Laws. Available at http://www.planalto.gov.br/ccivil_03/decreto-lei/del5452.htm. Accessed on: 21 July. 2019

BRAZIL. INTERMINISTERIAL ORDINANCE MINISTERS OF STATE OF LABOR AND SOCIAL PROTECTION - MTPS/MF No. 1 OF 01.08.2016. DOU: 01.11.2016 - Provides for the readjustment of benefits paid by the National Institute of Social Security - INSS and other amounts contained in the Social Security Regulation - RPS.

BRAZIL. REGIONAL LABOR COURT OF THE FIRST REGION – TRT/RJ. RO: 16066020125010076 RJ, Rapporteur: Mirian Lippi Pacheco, Judgment Date: 09/02/2013, Fifth Class, Publication Date: 09-19-2013.

BRAZIL. REGIONAL LABOR COURT OF THE FIRST REGION – TRT/RJ. RO: 00731006220095010343 RJ, Rapporteur: Rildo Brito, Judgment Date: 08/17/2015, Third Panel, Publication Date: 09/03/2015a.

BRAZIL. REGIONAL LABOR COURT OF THE FIRST REGION – TRT/RJ. RO: 00102576120135010039 RJ, Rapporteur: ENOQUE RIBEIRO DOS SANTOS, Judgment Date: 06/22/2015, Fifth Panel, Publication Date: 07/01/2015b.

BRAZIL. REGIONAL LABOR COURT OF THE SECOND REGION – TRT/ SP.Ac . 20000405170, 9-T., j. 7-8-2000, King. Luiz Edgar Ferraz de Oliveira, DOE/SP, 22-8-2000.

BRAZIL. REGIONAL LABOR COURT OF THE SECOND REGION – TRT/SP.RO: 699200744302002 SP 00699-2007-443-02-00-2, Rapporteur: MARCELO FREIRE GONÇALVES, Judgment Date: 05/13/2010, 12th PANEL, Publication Date : 25/06/2010.

BRAZIL. REGIONAL LABOR COURT OF THE SECOND REGION – TRT/SP.RO: 0133200-66.2008.5.02.005, Rapporteur: DAVI FURTADO MEIRELLES, Ordinary Appeal, Publication Date: 05-04-2011.

BRAZIL. REGIONAL LABOR COURT OF THE SECOND REGION – TRT/SP.RO: 00019752520145020054 SP, Rapporteur: KYONG MI LEE, Judgment Date: 12/01/2015, 3rd CLASS, Publication Date: 12/09/2015a.

BRAZIL. REGIONAL LABOR COURT OF THE SECOND REGION – TRT/SP.RO: 00000595820155020041 SP 00000595820155020041 A28, Rapporteur: MARIA ISABEL CUEVA MORAES, Judgment Date: 07/28/2015, 4th PANEL, Publication Date: 08/07/202.

BRAZIL. REGIONAL LABOR COURT OF THE SECOND REGION - TRT/SP.RO: 00007592520145020411 SP 00007592520145020411 A28, Rapporteur: SIDNEI ALVES TEIXEIRA, Judgment Date: 06/17/2015, 8th PANEL, Publication Date: 06/23/202.

BRAZIL. **REGIONAL LABOR COURT OF THE THIRD REGION** – TRT/MG. RO: 02594201313703004 0002594-04.2013.5.03.0137, Rapporteur: Manoel Barbosa da Silva, Fifth Class, Publication Date: 03/14/2016.

BRAZIL. **REGIONAL LABOR COURT OF THE FIFTH REGION** – TRT/BA. RO: 492001120045050021 BA 0049200-11.2004.5.05.0021, Rapporteur: MARIA ADNA AGUIAR, 5th. CLASS, Publication Date: DJ 11/19/2009.

BRAZIL. **REGIONAL LABOR COURT OF THE TENTH REGION** – TRT/DF-TO. RO: 247201111110004 DF 00247-2011-111-10-00-4 RO, Rapporteur: Judge Maria Piedade Bueno Teixeira, Judgment Date: 08/10/2011, 2nd Panel, Publication Date: 08/26/2011 in DEJT.

BRAZIL. **REGIONAL LABOR COURT OF THE EIGHTEENTH REGION** – TRT/GO, Proceedings; 68-78/2015; 245-42/2015; 246-27/2015; 269-70/2015; 271-40/2015; 272-25/2015; 579-76/2015; 580-61/2015; 596-15/2015; 789-30/2015; 805-81/2015; 10003-45/2015; 10088-31/2015; 10161-03/2015; 10199-15/2015; 10332-57/2015; 10548-18/2015; 10551-70/2015; 10002-60/2015. Available at <http://www.trt18.jus.br/portal/vara-do-trabalho-de-uruacu-fecha-acordo-milionario-envolvendo-pejotizacao-de-trabalhadores/>. Accessed on: 21 July. 2019

CARVALHO, Maria Amelia Lira de. **Pejotization and Mischaracterization of the Employment Contract: the case of doctors in Salvador** - Bahia. 2010. 153 f. Master's Dissertation in Social Policies and Citizenship – Catholic University of Salvador, Bahia.

CISNEIROS, Gustavo. **Synthesized Labor Law** . Rio de Janeiro: Forensics, 2016.

DELGADO, Mauricio Godinho. **Labor Law Course** . 15th ed. São Paulo: LTr , 2016.

DELGADO, Mauricio Godinho. **Course on labor law** : revised and updated work according to the labor reform law and subsequent normative and jurisprudential innovations. 18th. ed. Sao Paulo, LTr , 2019.

GONÇALVES, Jonas Rodrigo. **How to Write a Literature Review Article** . JRG Journal of Academic Studies. Year II, volume II, n.5 (Aug./Dec.), 2019a.

GONÇALVES, Jonas Rodrigo. **Scientific Methodology and Academic Writing**. 7.ed. Brasília : JRG, 2019b.

JORGE NETO, Francisco Ferreira; CAVALCANTE, Jouberto de Quadros Pessoa. **Labor Procedural Law**. 8. ed. Sao Paulo: Atlas, 2019.

KREIN, José Dari ; PRONI, Marcelo Weishaupt . Informal economy: conceptual and theoretical aspects. **ILO Brazil** . Brasilia, v. 1, no. 4, 2010.

LEITE, Carlos Henrique Bezerra. **Labor law course** . 11th ed. – Sao Paulo, Ed. Saraiva Educação, ISBN: 9788553605767. 2019.

MARTINS, Sergio Pinto. **Labor Law Course** . 28. ed. Sao Paulo: Atlas, 2012.

MENIN JUNIOR, Romeu Felix. **Labor Day Trivia** ; In a viral world Slavoj 's light Žižek . Available at: <https://bitly.com/apbDA>. Accessed on: 21 July. 2019

MENIN JUNIOR, Romeu Felix. Labor Outsourcing: The Existential Damage in Outsourcing. **Scientific Collection Magazine** , Vol. 3, no. 5, p. 07–21, 2019.

NASCIMENTO, Amauri Mascaro. **Labor Law Course** . 26th ed. São Paulo: Saraiva, ISBN: 9788502110168, 2011.

OLIVEIRA, Murilo Carvalho Sampaio. Post-Fordism and reflections on employment contracts. **Journal of the Faculty of Law UFPR** . vol. 43, 2005.

PEREIRA, Leone. **Work Process Manual** . 6. ed. São Paulo: Saraiva Jur., 2019a.

PEREIRA, Leone. **Legal Practice: Labor**. 9. ed. São Paulo: Saraiva Jur., 2019b.

RALIN, Paulo; ORSI, Renata; SABINO, Renato. **Forensic practice : Labor Practice** – São Paulo : Saraiva Educação, 2019.

SANTOS, Ronaldo Lima dos. Frauds in work relationships: morphology and transcendence. **Scientific Bulletin ESMPU** . Brasilia, a. 7, no. 28/29, p.51-82, Jul./Dec. 2008

SILVA, Luis Claudio Pereira da. **Main parts of Labor practice** . 3rd. ed , Rio de Janeiro: Freitas Bastos, 2019.

STANDER, Celia; SANTOS, Ronaldo Lima dos. Frauds in work relationships: morphology and transcendence. **Scientific Bulletin ESMPU** . Brasilia, a. 7, no. 28/29, p.69, Jul./Dec. 2008

SUSSEKIND, Arnold. Work relationship. **TST Magazine** . Brasilia, v. 75, no. 4, p.23, ISSN 0103-7978, Oct./Dec. 2009

ŽIŽEK, Slavoj , **In Defense of Lost Causes** . São Paulo: Boitempo , 2017.

COLETA SCIENTIFIC JOURNAL

Year I II, Vol. III, n.6, Jul.-Dec., 2019

ISSN: 2763-6496

DOI: <https://doi.org/10.5281/zenodo.4735679>

Submission date: 02/03/2019. Acceptance date: 12/20/2019.

Revista

Coleta Científica

ISSN: 2763-6496



ŽIŽEK, Slavoj , **Less than nothing**: Hegel and the shadow of dialectical materialism.
Sao Paulo: Boitempo . Translated by Rogério Bettoni , 2013.