Analele Universității din Oradea, Fascicula: Ecotoxicologie, Zootehnie și Tehnologii de Industrie Alimentară

STUDY REGARDING THE INCIDENCE OF THE OVARIAN CYSTS AT SOWS

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Abstract

The present study is a systematization of the different types of ovarian cysts at sows and a determination of its incidence. It is well known the fact that at sows, the ovarian cysts can't be diagnosed on the living animal. The same thing happens to the different types of ovarian cysts, too (4,7). The presence of ovarian cysts can be suspected at sows having an irregularity of the sexual cycle (prolong or short cycle), of the heat period (too short or too long), a strong oestrous manifestation (excluding nymphomania) at early weaned sows, at phytooestrogen and after administering PMSG (1,3,4).

Key words: ovarian cysts, incidence, sows.

INTRODUCTION

Infertility in females generally farmed animals varies depending on many factors, technical-organizational, agroeco-sistem, dismetabolics, infectious and genetic, sows between 10-40%. The presence of ovarien cyst lead to significant economic losses by default, so the diagnosis and treatment is paramount.

MATHERIAL AND METHODS

Research of this work were made at a slaughterhouse for slaughter pigs from Medzilaborce. Have been considered in the study culled sows and sows between January 2009 to July 2010. Number of heads in the survey was taken of 1438. Of the 934 were culled sows and 504 sows. Diagnosis of ovarian cyst was introduced following the necropsic examination, in which it took into account the presence, coexistence and the incidence of cysts, their appearance and consistency both in its entirety, as well as the section, i.e. their content. Based on these aspects ovarien cysts were classified into three types known from literature: follicular cyst, luteinization cysts and corpus luteum cyst (10).

Follicular cysts comes from a follicle maturation in growth or mature, which deprived of the presence of LH-anovulater, continues his stay on the ovary and then degenerates both hystological and endocrine. Some follicular cysts have internal sheath of very active and secrets oestrogen, which determines the behavior of an animal, nymphomanic liquid of these cysts is Citrine and transparent. Other follicular cysts does not have this feature, their fluid is transparent and citrine but not oestrogen.

Luteum cysts comes all from a mature follicle which didt took benefit of the Islington mill ratio FSH/LH normally, but having a count of LH however present remains anovulator. These cysts suffer a partial and segmentated intrafollicular luteinization, of the granulosa. The walls of uneven cysts undergoes a thickening and disappearance of transparency. Follicular fluid is easily red or slightly pathogenesis and contains a significant amount of progesterone.

Corpus luteum cysts originates everything in a mature follicle, which under the action of a normal ratio FSH/LH is able to become pathogenesis, to ovulate and to set up a body to yellow. This section on yellow body is not fully. He has a Center filled with cavitar liquid, citrine, marked by thick and uniform cortical (2, 10, 12).

There is also another classification of ovarien cyst: multiple cysts, solitary, large and small cysts.

Solitary cysts or unilocular cysts, with a diameter of 1,5/2,5 cm and there are generally one single on the ovary or on each ovary. They come from non aterics and involuation of the follicles are among the substances produced normally. Their presence does not disrupt the sexual cycle and behavior of that stage estral females. They have no role or physiological significance.

Luteal cysts big and multiples are derived from indehiscent, luteinization and segmentation of the partial 2-6, or even all Graaf follicles, unilaterally or both ovaries. Their size varies from individual to individual, being between 2-8 cm. due to partial transparency, and the thickness of the cysts luteinization is not similar, the color of the liquid inside them may be reddish or red-citrine-bloody. Luteinization cysts greatly affects the intensity of the heat, sexual behavior, and especially female cycle (may be from 2 to 90 days).

Follicular cysts small and multiples develops from mature follicles cysts, not ovulated and neither were partially lutenized. Are more numerous than the average number of normal follicles Graaf on the ovary integrity. The stature of these cysts is uniform and have a diameter of about 1 cm. intracystic Liquid is clear and citrine, very rich in oestrogen levels.Estral cycle has a great irregularity, heat is intensely manifested, but are not permanent and nymphomanics (2, 6, 17).

RESULTS AND DISCUSSION

By ovarian cysts on these topics 1438 is 2.43%. Incidence of ovarian cysts in general to the cooled sows was 5.69%, and the sows of 0.41%. Frequency cysts on both ovaries was higher than those based on a single ovary (2:1). The frequency of the largest recorded cysts of luteinization (63%), then the corpus luteum cysts (22%) and thirdly the follicular cysts (15%).



Fig. 1. Ovarian cysts in percentage representation on studied sows

CONCLUSIONS

Diagnosis of ovarian cysts on certain alive sows in the case of our growth is almost impossible. It makes a number of sows to be fertilized, remains in waiting and groups to influence the efficiency of breeding and rearing, until the day their reformation. Transrectal examination for diagnosis of cysts retains the attention of clinicians for the investigation of individual cases. In terms of industrial growth this flow remains impracticable. Ovarian cysts frequency reduction can be achieved only by taking the time to prevent it (for example exclusion stuffs with the Phytoestrogens) and treatment.

REFERENCES

- Alt, M., C. Gunther, L. Richter, H. Plonait, 1989 The appearance of ovarian cysts in young sows after treatament with gonadotropin preparations for estrus inductions, Berl. Munch. Tierarztl, 102 (9): 298 – 303.
- Castagna, C.D., C.H. Peixoto, F.P. Bortolozzo, I. Wertz, G.B. Neto, F. Ruschel, 2004 – Ovarian cysts and their consequences on the reproductive performance of swine herds; Anim. Reprod. Sci., 115 – 23.
- Dijk, J.E. van, E. Gruys, J.M.V.M. Mouwen, 2007 Color Atlas of Veterinary Pathology, 2nd edition, Saunders Elsevier.
- Ebbert, W., H. Bostedt, 1993 Cystic Degeneration in Porcine Ovaries First Communication: Morphology of Cystic Ovaries, Interpretation of the Results, Reproduction in Domestic Animals, Vol. 28, Issue 6, pages 441–450.
- 5. Gordon, I., 1997 Controlled reproduction in pigs, vol.3., CAB International.
- Jones, T.C., R.D. Hunt, N.W. King, 1997 Veterinary Pathology, Ed Williams & Wilkins.
- Karveliene B., H. Zilinskas, V. Riskevicience, 2007 Post-mortem Examination of Sows Genital Organs Culled for Reproductive Disturbances and Immunohistochemical Studies on Erα and PR A Receptors in the Anoestral Sows Uterus. Reprod Dom Anim.; 42:275-281.
- 8. Kauffold J., G.C. Althouse, 2007 An update on the use of B-mode ultrasonography in female pig reproduction. Theriogenology, 67, 901–911.
- 9. Liptrap R.M., P.J. McNally, 1977 Effect of the uterus on induced cystic ovarian follicles in the sow. Research in Veterinary Science, 22, 181–189.
- Lucy, M.C., J. Liu, C.K. Boyd, C.J. Bruker, 2001 Ovarian follicular growth in sows, International Conference on Pig Reproduction, 6th.
- Ogasa, A., I. Domeki, Y. Yokoki, S. Ito, 1983 Treatment of ovarian cyst in swine by intramuscular injection with luteinizing hormone-releasing hormone analogue. Natl Inst Anim Health Q (Tokyo); 23(4):150-7.
- 12. Olariu–Jurca, I., 2003 Diagnostic necropsic veterinar, Ed. Waldpress, Timişoara.
- Schnurrbusch, U., S. Scharfe, 1991 The occurrence of different forms of ovarian cysts in swine with special reference to their effect on the estrus cycle, Tierarztl Prax.; 19(6):635-43.
- Seigo, I., D. Ikuo, 2002 Morphological Classification of Ovarian Cyst by External Findings of Cystic Ovary and Internal Findings of Cystic Follicle in the Sow, Japanese Journal of Animal Hygiene, Vol.28; No.2; 77-82.
- 15. Straw, E. Barbara (coord.), 2006 Diseases of swine, 9th edition, Blackwell Publishing, Iowa, USA.
- Szulańczyk-Mencel, K., A. Rząsa, W. Bielas, 2010 Relationships between ovarian cysts and morphological and hormonal state of ovarian cortex in sows, Animal Reproduction Science, Vol. 121, Issue 3, Pages 273-278.
- 17. xxx Dictionnaire Larousse, 1996.
- 18. xxx www.guinealynx.info/ovarian cysts Ovarian tumors.
- 19. xxx www.merckvetmanual.com.
- 20. xxx www.octagon-services.co.uk Medicine used in reproduction.
- 21. xxx www.pigprogress.net/diseases/cystic-ovaries-d20.html.