The study of the role of genetic polymorphisms of cytokines in the hyperplastic urogenetic processes formation

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The aim of the study was to investigate the role of molecular-genetic markers of cytokines in the formation of hyperplastic processes in uterus. Twenty genetic polymorphisms were genotyped [-308 G/A TNFa, +250 A/G Lta +36A/G by TNFR1, -322VNTR TNFR2, -889 C/T IL-1α, -1A, 511 With/nt II-1B, II-1RA, -584C/T IL-4, -703C/T IL-5, -174G/C IL-6, -251 A/T IL-8, -T113M IL-9, -592 C/A IL-10, A/T MIP-1 (rs1719153), +764 G/with MCP-1, -801G/A SDF-1, G/A I-tac (rs512021), -403 G/A RANTES, C/T MIG (rs28694761), C/T IP-10 (rs867562)]. The investigated sample included 687 patients with hyperplastic urogenetic processes (hysteromyoma n=221, adenomyosis n=223, endometrial hyperplasia n=243) and 246 women of population control. The molecular and genetic markers, which associated with formation of hyperplastic processes in uterus, were identified. Risk factors for hysteromyoma were: +250G/Lta (OR = 2.74, R = 0.005); -889C/IL-1α (OR = 1.37, R = 0.02); -889CC/IL-1α (OR = 2.32, R = 0.04), endometrial hyperplasia - +36A/TNFα (OR = 1.87, R = 0.002). The concentration of genotype +36 G/TNFRI 5.13 %) for patients with hysteromyoma accompanied with adenomyosis, was four times less compared with the control group (22.93%, p=0.048), and the differences in frequency of allele +36 G/TNFRI between these groups, reached 150% (p=0.006). Patients with hysteromyoma, accompanied by hyperplastic urogenetics processes, had high frequency of genitals inflammatory diseases (85.71%, p=0.013) and the greatest prevalence of the genetic markers -108 and (17.33%) and -308 AA TNFa (8.00%) (OR=1.91 - 13.57, p=0.03). The maximum concentration of these markers was observed in cases when the hysteromyoma was accompanied by the polip of endometrium.

Keywords: Hyperplastic processes, molecular-genetic markers

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Age’s x-ray anatomy of skeleton scapular waist and forlorn of sheep prikatunsky type Gornoaltaysky breed in postnatal ontogenesis

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The purpose of the research is to find durations of appearance fossices of ossification bones of scapular waist, stylopodium (humerus), zeygopodium (forearm) and autopodium (proximal phalanx) of sheep of Prikatunsky type in postnatal ontogenesis. The samples were taken from nine sheep of Prikatunsky type of Gornoaltaysky breed at age of 1, 4 and 12, months of Altai (Russian gerion). Proximal phalanx, of a one month old sheep has lateral and medial fossices of ossification in both distal and proximal parts. An X-ray of a 4 month old sheep shows, that the scapula still consists of 60% of cartilage. The hurneras still has synhondrosis between the collum and the capit. Along the perimiter of semilunar incisur a solid architectonic is observable. Proximal epiphysis matches with metaphysis and suture is in the phase of ossification. 70 % of scapula of 12 month old sheep underwent the process of ossification, synhondrosis are not visible. On lateral surface of hurneras there is a small part of metaphysis cartilage. Ossification of skeleton scapular and forelimb of pricatunsky type sheep of Gornoaltayskysky breed skeleton scapular and forelimb is almost fully ended at age 12 months.

Keywords: Sheep, X-ray, ossification, development, bone