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## An Investigation of the Acetabulum, the Femoral Head and the Ligament of Femoral Head in Human Fetuses

İsmihan İlknur UYSAL<sup>1</sup>, Ahmet SALBACAK<sup>1</sup>, Mustafa İsmail Safa KAPICIOĞLU<sup>2</sup>, Mustafa BÜYÜKMUMCU<sup>1</sup>, Muzaffer ŞEKER<sup>1</sup>,  
Aynur Emine ÇİÇEKÇİBAŞI<sup>1</sup>

<sup>1</sup>Department of Anatomy, Meram Faculty of Medicine, Selçuk University,  
Konya - Turkey

<sup>2</sup>Department of Orthopedics, Meram Faculty of Medicine, Selçuk University,  
Konya - Turkey

 [Keywords](#)  
 [Authors](#)



[medsci@tubitak.gov.tr](mailto:medsci@tubitak.gov.tr)

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**Abstract:** We investigated the morphometric characteristics of the acetabulum, the ligament of the femoral head (LFH) and the femoral head, and the relationships among them in 30 spontaneously aborted human fetuses. The maximum length and width of the LFH, the transverse and vertical diameters of the femoral head and the acetabulum, the height of the femoral head and the depth of the acetabulum were measured and the existence of any relationship among them was assessed statistically. The acetabulum was circular in 58.4% of cases and oval in 41.6%. The diameter of the femoral head was less than that of the acetabulum in 91.7% of subjects. In one case the base of the acetabulum was devoid of cartilage tissue. When all of the parameters were compared according to gender and lateralization, only the length of the LFH in females on the left side was greater than that on the right side ( $P < 0.05$ ). There was a high correlation between the diameters of the acetabulum and the femoral head as well as the acetabular depth and the height of the femoral head. The relation between gestational age and the measured data was significant ( $P < 0.05$ ). The presented data may help to explain the effect of hip joint morphology during developmental stages on the process of some congenital hip joint diseases.

**Key Words:** Ligament of the femoral head, Acetabulum, Human fetus

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