

## SUMMARY

YAZICI MF. Computed Tomographic Evaluation of Changes of the Hip Joint Following Juvenil Pubic Symphysiodesis (JPS) in Dogs.

In this study, the dogs (8) scanned with computed tomography preoperatively and 1<sup>st</sup>, 3<sup>rd</sup> and 6<sup>th</sup> months postoperatively and changes of the hip joint following JPS were evaluated. For this purpose, the dogs chosen from ADU Surgery Clinic, Faculty of Veterinary Medicine, Clinics patients that are radiological examined and determined laxity in the hip joint which decided to implementation of JPS. Dogs (1 male, 7 female) were 4-6 months old, mongrel and non-orthopedic problems but the laxity in the hip joint.

Following one day fasting period, dogs were anaesthetised by xylazine (Alfazyne<sup>®</sup>, Ege-Vet) and ketamine (Alfamine<sup>®</sup>, Ege-Vet) after atropine (Atropin<sup>®</sup>, Vetaş) injection and then scanned with computed tomography in general anesthesia.

Scans were made in supine (ventro-dorsal) and weight bearing positions.

From the results of the scans that obtained in general anesthesia, Measurements Related to Acetabulum (AI Angle, AAI, Acetabular Indeks, DKU, VKU, HTEA, AA), Measurements Related to Caput Femoris-Acetabulum (Lateral Coverage, AcetAV, VASA, DASA, HASA, DLS, DAKA, LCEA, DCEA, VCEA, MUI, CPC) and Measurements Related to Collum Femoris (FIA, FAA) have been measured and calculated respectively.

As a result, computed tomography provides very valuable datas for the evaluation of joint morphometry in the process of diagnosis and treatment of hip dysplasia in dogs. Besides that, AIA (preoperatively  $20,24 \pm 1,14$  (11,9-26,2), postoperatively 1<sup>st</sup> month  $21,82 \pm 0,65$  (16,1-25,3), postoperatively 3<sup>rd</sup> month  $22,61 \pm 1,10$  (16,1-25,3), postoperatively 6<sup>th</sup> month  $20,93 \pm 0,87$  (15,6-24,7)), AI (preoperatively  $40,18 \pm 1,49$  (31,65-47,74), postoperatively 1<sup>st</sup> month  $43,69 \pm 1,34$  (36,71-51,24), postoperatively 3<sup>rd</sup> month  $46,29 \pm 1,21$  (37,08-52), postoperatively 6<sup>th</sup> month  $41,34 \pm 1,60$  (33,31-50,3)), acetabular depth (preoperatively  $0,78 \pm 0,03$  (0,62-0,96), postoperatively 1<sup>st</sup> month  $0,87 \pm 0,04$  (0,65-1,04), postoperatively 3<sup>rd</sup> month  $0,91 \pm 0,03$  (0,74-1,05), postoperatively 6<sup>th</sup> month  $0,82 \pm 0,04$  (0,6-1,06)), AAI (preoperatively  $91,53 \pm 1,66$  (83,2-103,3), postoperatively 1<sup>st</sup> month  $88,64 \pm 0,71$  (85-95,1), postoperatively 3<sup>rd</sup> month  $88,83 \pm 0,49$  (84,9-91,3), postoperatively 6<sup>th</sup> month  $88,24 \pm 0,60$

(85,1-93,3)), DCEA (preoperatively  $8,35\pm 1,12$  (1,4-17), postoperatively 1<sup>st</sup> month  $5,12\pm 0,84$  (1,6-11,1), postoperatively 3<sup>rd</sup> month  $5,54\pm 0,71$  (1,5-11,6), postoperatively 6<sup>th</sup> month  $4,62\pm 0,75$  (1,4-10,5)), VCEA (preoperatively  $39,98\pm 1,27$  (31,3-51,2), postoperatively 1<sup>st</sup> month  $38,46\pm 1,83$  (25,9-49,1), postoperatively 3<sup>rd</sup> month  $35,01\pm 1,9$  (20,9-44,8), postoperatively 6<sup>th</sup> month  $36,19\pm 1,02$  (32,2-45,7)), DARA (preoperatively  $17,75\pm 1,98$  (5,8-30,1), postoperatively 1<sup>st</sup> month  $14,89\pm 1,32$  (8,2-26,4), postoperatively 3<sup>rd</sup> month  $15,26\pm 1,04$  (7,1-22,2), postoperatively 6<sup>th</sup> month  $16,99\pm 1,49$  (5,3-25,8)) and HTEA (preoperatively  $17,24\pm 1,45$  (9,1-29,8), postoperatively 1<sup>st</sup> month  $16,31\pm 1,02$  (9,5-22,6), postoperatively 3<sup>rd</sup> month  $17,66\pm 0,91$  (9,5-26,9), postoperatively 6<sup>th</sup> month  $19,28\pm 1,04$  (14,2-27,2)) reported as important parameters. Also we decided that the JPS has prevented/decelerated the dysplasia at early stage of hip laxity in dogs.

**Key Words:** Computed tomography, Dog, Hip dysplasia, Juvenil pubic symphisiodesis.