

Public Abstract

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Graduation Term:SS 2011

Department:Veterinary Medicine and Surgery

Degree:MS

Title:DOUBLE PELVIC OSTEOTOMY FOR THE TREATMENT OF HIP DYSPLASIA IN DOGS

Canine hip dysplasia (CHD) is a hip joint disease that first occurs in dogs at a young age but causes arthritis that affects them for their entire lives. A surgery called triple pelvic osteotomy (TPO) can be performed from 6 to 12 months of age to prevent arthritis from developing. This surgery has been associated with complication rates of up to 66%. A recent modification involves only cutting two pelvic bones instead of three and is called double pelvic osteotomy (DPO). To evaluate DPO as a clinical technique, we performed two studies, an anatomic study on canine cadavers and a clinical study comparing the complication rates of the TPO to the newer DPO in our hospital population.

The goal of our anatomic research was to determine how much rotation is needed with the DPO to replicate what has been recommended for the TPO. Our research found that a 25 degree rotation is needed with the new DPO technique to result in the same effect as 20 degrees of rotation as recommended for TPO.

Our clinical study compared the complication rates of patients that had either a TPO or DPO performed. Triple pelvic osteotomy and DPO had similar rates of minor complications (46.6 and 42.9%, respectively). However, two major complications (13.3% of cases) occurred with TPO and none occurred with DPO. Since both the overall complication rate and severity of complications is lower for DPO than TPO, our research supports that the DPO is a remarkable improvement over the previous TPO.