Juvenile Pubic Symphysiodesis

What is Juvenile Pubic Symphysiodesis?

Juvenile Pubic Symphysiodesis (JPS) is a relatively minor surgical procedure performed on young, growing puppies to prevent or reduce the severity of canine hip dysplasia. The goal of JPS is to prematurely fuse a growth plate at the bottom of the pelvis to alter pelvic development, gradually improving the coverage of the femoral head (the "ball") by the acetabulum (the "socket") as the pelvis grows. This has the potential to significantly reduce the chance of needing more invasive surgical intervention (such as hip replacements), later in life. It will also potentially reduce the development of osteoarthritis & the costly ongoing medical management associated with this lifelong condition.

JPS uses an electric scalpel to create scarring in the growth plate of the floor of the pelvis. The effect of this is to halt bone development from this growth plate so that as the rest of the pelvis continues to grow, the cups of the hip joint externally rotate onto the ball of the hip joint to provide better coverage of the balls of the hip joint. The surgery causes minimal discomfort, however, your pup should still be kept rested for 14 days after surgery. Follow-up X-rays may be taken 2-3 months post-operatively to assess the success of the surgery.

The best results are achieved if surgery is performed at 14-16 weeks of age, while the pelvis is still growing & developing. Between 16-20 weeks of age a good outcome is still possible but significantly reduced compared to 14-16 weeks. Dogs > 20 weeks of age are unlikely to benefit from JPS surgery.

Outcome and potential risks of surgery

Most dogs progress well following JPS and may return to their previous activities relatively quickly, however all dogs with hip dysplasia should have activity modified to reduce damage to the developing hips.

For dogs undergoing JPS before 16 weeks of age:

- 80% of dogs will have significantly improved hip anatomy thus reducing the likelihood of significant osteoarthritis development and the requirement for ongoing medical management or surgical intervention e.g. (total hip replacement) later in life.
- 5-10% of dogs will have substantial improvement of hip conformation and develop little to no osteoarthritis later in life.
- Up to 10% of dogs will have marginal or no improvement.

As with any surgery complications may arise as detailed below, although serious complications are rare.

- Infection is an uncommon complication as strict sterile technique is used during the surgery and antibiotics are administered during the procedure.
- Failure of the pubic growth centre to be successfully ablated by the cauterization surgery, thus the pelvis grows as it would naturally & the hip dysplasia progresses.
- Damage to the urethra, nearby nerves or blood vessels.
- narrowing of the pelvic canal (potentially problematic for female dogs that give birth). This shouldn't be an issue as all dogs with hip dysplasia should undergoing neutering to prevent passing on the condition and maintaining "hip dysplasia genes" in the gene pool.

Postoperative care

A pad may be covering the wound at the time of discharge from the hospital. This can be removed after several days, or immediately if soiled.

Medications e.g., Pain killers may be dispensed.

Ice packs may also be helpful in the days following surgery to reduce swelling and improve comfort.

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Confine appropriately to **eliminate running and jumping** for 2 weeks; chose appropriate confinement to achieve this for your dog; cage confinement is advised. Short **leash** walks in the garden (a few minutes four to six times daily) are recommended to allow toileting. Keep your dog at your side; use a lead of no more than 1-metre length.

Declaration

I have read the information contained herein and am satisfied I have a sufficient understanding of the JPS procedure; I hereby consent for my dog to undergo JPS surgery.

Owner's name: Dog's Name:

Owner's signature: Date: