

## LAPAROSCOPY FOR INTRA-ABDOMINAL TESTES - DO WE ALWAYS HAVE TO SACRIFICE THE VESSELS?

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**Aim of the Study:** Currently most UK centres recommend laparoscopic two-staged Folwer Stephens Orchidopexy (FSO) as the operation of choice for management of intra-abdominal testes (IAT). Historically, rat study demonstrated a staggering degree of testicular tubular atrophy correlating with a poor paternity rate of 18% in those animals undergone division of testicular artery and vein. No paternity outcome is yet available for FSO. Literature suggested laparoscopic Testicular Vessels Intact Orchidopexy (TVIO) is as good if not superior in selected IAT. We reviewed the long term outcome of a single surgeons' experience.

**Methods:** TVIO has been the procedure of choice for the senior author. Retrospective review of casenotes was performed during the period of 1997-2014. Inclusion criteria were impalpable testes indicated for laparoscopic exploration. Once a viable IAT was identified, those <2cm from the internal ring underwent TVIO; the rest FSO. Long term follow-up noting testicular volume measured using orchidometer expressed as % of contralateral testis has been recorded.

**Main results:** Laparoscopy was performed for 84 impalpable testes, of which 31 were viable for laparoscopic orchidopexy. 22 of those situated <2cm from the internal ring underwent TVIO; the remaining 9 testes underwent one or two-staged FSO (3 and 6 testes respectively). Median follow-up 5 years (range 1.5-17 years). In the TVIO group, 21 viable testes were found in scrotal position at follow-up; 1 hypotrophied but doppler flow and testicular tissue confirmed by ultrasound. This compared to 1/3 and 3/6 atrophy observed in single and 2-staged FSO. Prepubertal boys retained 100% testicular volume of their TVIO side compared to contralateral, whilst growth of the affected testes decelerated during puberty down to 70% at latest follow-up.

**Conclusion:** Upon laparoscopy for IAT, distance of testis from internal ring should be measured and TVIO considered for those <2cm, avoiding staged procedure and high atrophy rate