**IS-015**

**DO MAVIS AND DORSAL DARTOS PATCH PROCEDURE IMPROVES THE COMPLICATION RATES AND SIDE EFFECTS OF MATHIEU PROCEDURE?**

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The aim of this study was to evaluate the effects of MAVIS (V-incised-sutured) and dartos patch techniques to reduce the complication rates and side effects of Mathieu procedure. 75 patients with distal shaft hypospadias without chordee or minimal chordee were operated by a single surgeon using Mathieu technique. While only classical Mathieu was performed in Group-I, MAVIS and dorsal dartos patch reinforcement were included in the Group-II. Silicone urethral catheter and foam-silicone dressing was used in each patient.

32 children in Group-I and 43 cases were included into Group-II. Median age at operation was 3.2 and 3.3 years in Group-I and II respectively. Mean postoperative period for dripping silicone catheter was 4.5 days for both groups. Five fistula and one meatal stricture developed in Group-I, and all the children in this group required meatal calibration. Neither fistula nor stricture developed in Group-II. There was no need for calibration (except 3 patients). Also there was no need for meatal dilatation in Group-II. Slit-like meatus was achieved in all children of Group-II but in only 12 cases of Group-I.

In conclusion, MAVIS technique and dorsal dartos patch reinforcement may prevent the complications of classical Mathieu repair. Slit-like meatus could be obtained in all cases with this approach.

**IS-016**

**Fetal surgery for repair of myelomeningocele allows normal development of anal sphincter muscles in sheep**

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Purpose: One major problem for patients with myelomeningocele (MMC) is fecal incontinence. The purpose of this study was to determine whether fetal surgery for repair of MMC allows normal development of anal sphincter muscles. Methods: MMC was surgically created in fetal sheep at 75 days of gestation. At 100 days of gestation, fetal surgery for repair of the MMC lesion was performed. Three repair methods were used: standard neurosurgical repair (4), covering the MMC lesion with AlloDermTM (2), and covering the MMC lesion with Gore-TexTM (2). After the lambs were delivered (140 days of gestation), external and internal anal sphincter muscles were analyzed histopathologically. Results: In control fetal sheep (not repaired), anal sphincter muscles did not develop normally. In contrast, in all fetal sheep that underwent repair of the MMC, the external and internal anal sphincter muscles developed normally. Histo-pathologically, in the external sphincter muscles, muscle fibers were dense. In the internal sphincter muscles, endomyosial spaces were small, myofibrils were numerous, and fascicular units were larger than those in unrepaired fetal sheep. There was no difference in muscle development for the repair methods. Conclusions: Fetal surgery for repair of MMC allows normal development of anal sphincter muscles.