

## THE MANAGEMENT OF BOYS UNDER 3-MONTHS OF AGE WITH AN INGUINAL HERNIA AND IPSILATERAL PALPABLE UNDESCENDED TESTIS: RESULTS OF A 10-YEAR MULTI-CENTRE RETROSPECTIVE REVIEW

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**Aims:** Current practice regarding management of the testis in young boys with an indirect inguinal hernia (IIH) and ipsilateral palpable undescended testis (IPUDT) varies widely. We aimed to identify the optimal management of these children by comparing outcomes of treatment strategies.

**Methodology:** Retrospective 10 year (2005-2015) review across 4 paediatric surgery centres of boys under 3 months of age with concomitant IIH and IPUDT. Primary outcome was testicular atrophy. Secondary outcomes included testicular ascent, need for subsequent orchidopexy and hernia recurrence. Data are median (range). Chi squared test was used for analysis;  $p < 0.05$  was considered significant.

**Results:** Forty-one infants were identified and all included. Median gestational age at birth was 37-weeks (24-42) and birth weight 2.5kg (0.56-4.95). Post-conceptual age at time of diagnosis of IIH with IPUDT was 43 weeks (33-52). At presentation, 19 (46%) hernias were right sided, 15 left (37%) and 7 (17%) bilateral. 27 (66%) hernias were reducible, 14 (34%) were symptomatic requiring emergency repair. Post-conceptual age at surgery was 45 weeks (37-65). Primary operations included: 7 (17%) open hernia repair with no orchidopexy, 1 (2%) open hernia repair and suturing of the testis to the inverted scrotum without scrotal incision, 29 (71%) open hernia repair and standard orchidopexy, 4 (10%) laparoscopic hernia repair with future orchidopexy if required.

Variation in atrophy rate between different surgical approaches did not reach statistical significance ( $p = 0.09$ ; Table 1). There was a significantly higher risk of requiring a subsequent orchidopexy in the groups with open hernia repair and no orchidopexy or laparoscopic hernia repair than those receiving an orchidopexy at the time of primary surgery ( $p = 0.0005$ ). No hernia recurred.

**Conclusion:** Orchidopexy at the time of primary surgery did not increase the risk of atrophy, but was associated with a significantly lower need for subsequent orchidopexy.

**Table 1:** The outcome of different operative strategies for boys under 3-months of age with both an IIH and IPUDT

	Open repair and no orchidopexy (n=7)	Open hernia repair and suturing of the testis to the inverted scrotum (n=1)	Open hernia repair and orchidopexy (n=29)	Laparoscopic hernia repair and subsequent orchidopexy if needed (n=4)
<b>Atrophy</b>				
Partial	<b>2 (29%)</b> * 1R, 1I	0	<b>3 (10%)</b> * 1R, 2D,	<b>1 (25%)</b> *1R
Complete	0	<b>1 (100%)</b> *1D	0	0
Not recorded	1	0	3	0
<b>Subsequent orchidopexy</b>				
	<b>5 (71%)</b>	0	<b>1 (3%)</b>	<b>3 (75%)</b>

\* Type of hernia at the time of surgery: R = reducible, D = difficult to reduce requiring emergency repair, I = irreducible.