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CONVENTIONAL 3 PORT VS SINGLE INCISION LAPAROSCOPIC OOPHORECTOMY FOR OVARIAN CRYOPRESERVATION

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Aim: Cryopreservation of ovarian tissue has rapidly increased since its introduction into paediatric practise in 2013. Laparoscopic oophorectomy (with or without concurrent procedures) is the method of choice to retrieve this healthy ovarian tissue. Initially conventional 3 port laparoscopy was utilised. A 10mm umbilical port, often with extension of the fascial incision, is required to safely deliver the tissue. Experience found the majority of operative time was utilised by port placement and closure. We aimed to compare whether single incision laparoscopic surgery (SILS) would be superior to conventional 3 port for oophorectomy for cryopreservation.

Methods: SILS was implemented as the first line method following a period of training in the local laparoscopic suit. Data was collected for all patients undergoing laparoscopic oophorectomy for cryopreservation over a ten-month period (5months conventional, 5 months SILS). Patients were fully informed and consented for SILS, 3 port and open oophorectomy. All patients received maximum dose of local anaesthetic wound infiltration intra-operatively. Outcomes included rate of conversion, operative time as documented in theatre log, post-operative analgesia requirement, complications and length of stay were assessed.

Results: 34 patients were identified. 18 3-port and 16 SILS. 17 patients underwent concurrent procedures including Hickman line insertion). No cases were converted from their initial method. No intraoperative complications were reported. Figure 1.

Conclusion: SILS is not inferior to conventional 3 port laparoscopy for oophorectomy. The operative time and length of stay are comparable. No cases were converted and no intraoperative complications were experienced. Post-operative analgesia requirement following SILS was less than conventional laparoscopy. SILS is an appropriate alternative method for laparoscopic oophorectomy in patients undergoing retrieval of tissue for cryopreservation.

Outcome	**Conventional 3 port**	**SILS**
Mean operative time for sole procedures	43.2mins (37-52 mins)	38.9mins (15-51mins)
Median post-operative analgesia requirement	2 doses PR diclofenac 2 doses PO morphine sulphate 4 doses PO/IV paracetamol 7patients (39%) received PCA	1 dose PR diclofenac 1 dose PO morphine sulphate 2 doses PO/IV paracetamol 2 patients (12.5%) received PCA/NCA (both removed within 6 hours)
Median length of stay	1 night (0-32)*	1 night (0-20*).
	*local patients remained under inpatient oncology care for ongoing treatment. Max stay under surgical care 3 days following concomitant gastrostomy placement. Max stay 1 night post-procedure for isolated oophorectomy in both groups.	

Figure 1: Comparison of conventional 3 port vs single incision laparoscopy for oophorectomy for cryopreservation.