SURGICAL SIMULATORS

The iPhone® and iPad® are connected via a camera application, with a live video feed recorded on the iPhone® and displayed on the iPad®. Surgical simulation exercises include sugar cube stacking, passing beads between forceps, cutting shapes from latex gloves, inserting a string through hoops, and tying knots and suturing.

DISCUSSION

The iSurgery device (Fig 1) is an inexpensive simulator for developing laparoscopic skills. It is reproducible, transportable and operable in remote areas. Juniors must self-direct their training outside their compliant clinical hours and acquiring skills via simulation improves surgical dexterity.

The Telford tonsillectomy tie trainer: an AirSim model modification

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None of the authors have any commercial interest in any of the products described in this technical note.

BACKGROUND

Junior trainees perform fewer procedures than ever, meaning greater emphasis is placed on simulation. In otolaryngology, early proficiency in tonsillectomy is important. The national tonsillectomy audit showed that cold steel dissection with ties minimises the post-tonsillectomy haemorrhage risk.¹ Tying securely at depth requires regular practice and we describe one simulator to accomplish this.

Other authors have designed simple, inexpensive models.^{2,3} However, our adaptation of the AirSim Bronchi (TruCorp, Belfast, UK)⁴ increases realism, familiarisation with more equipment and the ability to practise other procedures.

TECHNIQUE

A replica tonsil is created from gauze and secured in the oropharynx by a Birkett forceps inserted in the oesophagus. The procedure now occurs using standard equipment, with Draffin rods in pre-existing grooves (Fig 1). A headlamp is recommended to become accustomed to its use.⁵

Figure 1 The complete model with a trainee demonstrating application of silk ligature to inferior pole of tonsil

DISCUSSION

We feel the high initial cost is easily outweighed by many rotating trainees safely acquiring new skills on realistic models.

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