

### SIII3: VALIDATION OF AN ORGANIC MODEL FOR TRAINING MINIMAL INVASIVE SURGERY OF ESOPHAGEAL ANASTOMOSIS

Blanca Fernández Tomé<sup>\*1</sup>, Laura Correa<sup>1</sup>, Idoia Díaz-Güemes<sup>1</sup>, Miguel Ángel Sánchez- Hurtado<sup>1</sup>, Araceli García-Vázquez<sup>2</sup>, Indalecio Cano<sup>2</sup>, Francisco Berchi<sup>3</sup>, and Francisco Miguel Sánchez-Margallo<sup>1</sup>

E-mail: Blanca F. Tomé — bfernandez@ccmijesususon.com

<sup>1</sup>Minimally Invasive Surgery Centre Jesús Usón, Ctra.N-521, Km 41,8 10071. Cáceres, Spain; <sup>2</sup>Hospital 12 de Octubre, Avenida de Córdoba s/n, 28041 Madrid, Spain; <sup>3</sup>Infancia sin fronteras, Av. Leopoldo Calvo, Sotelo Bustelo, nº 6 LOCAL 28224, Pozuelo de Alarcón, Madrid, Spain

**Background** We present the results of the validation of an organic model created for training thoracoscopic treatment of esophageal atresia (EA).

**Materials and methods** We employed a porcine esophagus piece placed on a synthetic plate. This device was inserted into the laparoscopic simulator, SIMULAP®. Twenty international laparoscopic pediatric surgeons attending hands on courses with different levels of training in minimal invasive surgery (MIS). Posterior experience in MIS course, anatomical appearance of the model, surgical anatomy compared to a real patient, and utility as a training method were analyzed. A Likert-type scale was used to evaluate results. To analyze the results we used a T-test.

**Results** Twenty questionnaires were completed. All of surgeons has an experience of  $\geq 30$  EA by open surgery approach and  $\geq 100$  MIS procedures as surgeon.

In relation to the anatomical characteristics of the model, 95% (n=19) respondents considered that the model has a high degree of similarity or good similarity; in relation to surgical anatomy. 85% (n=17) respondents considered that the model can generate a good amount of skills and can generate great majority of skills to thoracoscopic EA repair. Participants strongly believed that this model should be included in the thoracoscopic training programs.

**Conclusions** Our organic model has demonstrated that is a good device to develop specific skills in the thoracoscopic treatment of esophageal atresia.

**Key words** esophageal atresia repair, neonatal minimal invasive surgery, surgical simulation, thoracoscopy, training model