



PRENATAL SPINA BIFIDA COURSE - April 29th- 30th, 2024

PRENATAL DIAGNOSIS, COUNSELING, AND OPEN / FETOSCOPIC IN-UTERO REPAIR.

Venue: Jesus Usón Minimally Invasive Surgery Centre (JUMISC), in Cáceres (Spain). A multidisciplinary institution devoted to research and innovation in health sciences.

<https://www.ccmijesususon.com/en/jumisc/>

Professors (in person / [virtual](#)):

FETAL SURGEONS: [Jose L. Peiro, MD](#) / [Foong Y. Lim, MD](#)

MFM: [M. Habli, MD](#) / [David N. McKinney, MD](#) / [K. Markham, MD](#) / [Mallory Hoffman, MD](#) / [B. Forde, MD](#)

PEDIATRIC NEUROSURGEONS: [Charles B. Stevenson, MD](#) / [Karin Bierbrauer, MD](#)

FETAL IMAGING: [Beth Kline-Fath, MD](#) / [Usha Nagaraj, MD](#)

FETAL/MATERNAL ANESTHESIA: [Rupi-Mavi Parikh, MD](#) / [Mario Patino, MD](#)

NURSES: [Katy Donaldson](#) / [Joshua Thorpe](#) / [Kristy Niccum](#)

Program:

Monday, April 21st

08:30-14:30 h – Theoretical concepts in Spina bifida. Diagnosis. Selection criteria. Counseling. Surgical procedures. Instruments and setting. Anesthesia. Postoperative management. Protocols and techniques.

14:30-15:30 h – Lunch

16 -17:30 h – Simulator practice

21:00 h – Dinner together (time for interaction between teams)

Tuesday, April 22nd

09-11h – Demonstration in the animal model (pregnant ewes) – creation SB and Fetoscopic Repair.

11-14h – HANDS-ON: Creation SB + Fetoscopic Repair with dural patch and primary skin closure.

14-15h - Lunch

15-17h – HANDS-ON: Fetoscopic Repair with dural and skin alloderm patch – closure of uterus.

17:00 h – End of the course. Certificates. Farewell.



Monday, April 21st

TALKS ----- PEIRO / Hoffman / STEVENSON / PATINO / Donaldson

08:30 h - Welcome. Introduction.

09:00 h - Basic concepts in Spina bifida. Embryology. First and second hit. Animal models. Physiopathology.

09:20 h - Prenatal diagnosis - Ultrasounds first and second trimester. Anatomical and functional level.

09:40 h - Prenatal diagnosis - Fetal MRI (Dr. Usha Nagaraj VIRTUAL)

10:00 h - Intake of patient - phases of counseling - nurse coordinator (Erinn Goetz VIRTUAL)

10:10 h - Phase I. Postnatal vs prenatal repair. MOMS trial. Inclusion criteria for prenatal repair.

10:20 h - Phase II. Pros and cons. Risks of prenatal surgery.

10:30 h - Phase III. Options for open/ Fetoscopic SB repair. Consents. Preoperative management.

10:40 h - History and current status of the fetoscopic approach.

11:00 h - COFFEE BREAK

11:20 h - Setting of the OR (OR nurse)

11:30 h - Instruments and materials (OR nurse)

11:40 h - Maternal and Fetal anesthesia

12:00 h - Fetoscopic surgery. Step by step. Preparation of cannulas, sutures, and patches.

12:15 h – Maternal laparotomy. Placental mapping and trocar insertion. Amniodistention. Fetal position.

12:30 h – Neurosurgical repair. Important tips and concepts. Skin flaps.

12:45 h – Placement of patches (dural/cutaneous) and skin closure. Uterine access closure.

13:00 h – Intraoperative fetal monitoring. Postnatal management. Tocolysis.

13:15 h – Rest of the pregnancy monitoring, complications and delivery.

13:30 h – Virtual connection with the Cincinnati Fetal Care Center. Questions and discussion.

14:30 h – LUNCH

15:30 h – Neonatologist management and overview (Dr. Riddle VIRTUAL)

15:45 h – Neurosurgical management of the newborn. Short and long term follow up.

16:00 h – Practice on the SIMULATOR. Basic technical concepts and steps.

17:30 h – End of day. Relax and walk in Caceres.

21:00 h – DINNER together