

**Learn & Improve Professional Skills (LIPS) Track – Session 9**

Paediatrics Committee

Tuesday, September 12, 08:00 – 09:30

Session Title**Paediatric Nephro-Urology – beyond Hydronephrosis****Chairpersons****Ana Isabel Santos** (Almada, Portugal)**Pietro Zucchetta** (Padua, Italy)**Programme**

- 08:00 – 08:25 **Ana Isabel Santos** (Almada, Portugal): Renal scintigraphy in kidney abnormalities other than hydronephrosis
- 08:25 – 08:50 **Julian Rogasch** (Berlin, Germany): MAG3 or DMSA in congenital renal malformation
- 08:50 – 09:15 **Pietro Zucchetta** (Padua, Italy): DMSA, MAG3, sonography and functional MRI: contribution in complex ectopic, duplex and horseshoe kidneys
- 09:15 – 09:30 Q&A -Discussion

Educational Objectives

1. Provide attendees the theory and practical instruments to choose and use the different tools of renal function evaluation and to correctly assess split function in difficult cases.
2. Diagnosis and evaluation of kidney function and ureteral drainage in anatomic, position and functional abnormalities (uretero-pelvic junction, ureterocoele, ectopic ureteral insertion, urethral abnormalities, cystocele, neurologic bladder)
3. Systematic description of complex malformations and the contribution to functional and excretion assessment of the different diagnostic tools, from sonography to MRI, across dynamic or static scintigraphy and cystography.

Summary

Congenital anomalies of the kidneys and urinary tract (CAKUT) are disorders caused by defects in the development of the kidneys and their outflow tract. In less severe cases, the baby can be born with combined kidney and outflow tract defects, mild to severe clinical presentation and different long-term outcome. Clinical images include anatomic, position and functional abnormalities of the uretero-pelvic junction, of the vesico-uteric junction (ureterocoele, ectopic ureteral insertion), urethral abnormalities, cystocele or neurologic bladder. We will discuss different diagnostic tools for the diagnosis and evaluation of kidney function and ureteral drainage, being the information they provide of paramount importance in the early phase of life and in the follow-up, to provide nephro-urologists with efficacious tools to manage these complex cases.

Attendees will learn how to choose the appropriate nuclear medicine examination, acquire and interpret the images in complex scenarios, such as split renal function assessment in duplex or horseshoe kidneys. We will also discuss the contribution of radiologic tools like sonography and ureteral-pelvic MRI in complex malformations.

The paediatric Nuclear Medicine experts will provide take-home messages and will interact with the audience through Q&A during the presentation and a short discussion during/at the end of the session.

Key Words: CAKUT, ectopic kidney, duplex kidney, horseshoe kidney, congenital complex malformations, renal cintigraphy