tolerate therapy and the difficulties regarding care of vascular-access ports in a younger cohort.[1] Given the lack of data surrounding PLEX in Paediatrics, protocols are developed based on extrapolations from best-practice in adult populations, an area where work must be carried out to improve patient safety and outcome. We present a large cohort of paediatric patients undergoing therapeutic plasma exchange therapy for solely renal indications, across a period of 17 years.

A retrospective chart review was conducted for all patients (under 16 years) undergoing PLEX therapy for a renal indication, as specified by the ASFA Guidelines, between January 2002 &amp June 2019.[2] The following data were extracted, for each individual case: Age; gender; indication; complications; pre-medications; therapeutic outcome. Patients were stratified into groups as follows: STEC HUS; aHUS; Nephritis (C3GN, PIGN, anti-GBM, ANCA Vasculitis); IgA Nephropathy/HSP; Post-Transplant (recurrent FSGS, acute humeral rejection). This review was performed with permission from the CHI at Temple Street Research & Ethics Committee.

A total of n=58 patients were identified, 39.7% were male (n=23) and 60.3% were female (n=35). 1137 exchanges were performed. The median age of patients undergoing PLEX was 35.5 months. The most common indication was STEC HUS (n=29). Fluid substitution was performed using 5% Albumin-Saline or Plasma. Complications occurred in n=38 patients, with most experiencing minor complications. Asymptomatic hypocalcaemia was the most common complication experienced (n=25). There were no deaths as a result of PLEX therapy.

We present our experience of plasma exchange (PLEX) therapy, spanning 1,137 exchanges across 17 years, proved a well-tolerated, highly efficacious therapy for a variety of renal pathologies, as listed above. Most complications experienced were minor in nature, and with therapy conducted in specialised centres, with appropriately paediatric-trained staff, there are very low levels of adverse events – most of which can be anticipated.

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375 NEUROGENIC BLADDER DYSFUNCTION – EXPERIENCES OF THE DEPARTMENT OF PEDIATRICS IN UNIVERSITY HOSPITAL CENTRE SPLIT

Prgomet Sandra*, Saraga Marijan, Arapović Adela, Todorić Jakov, Meštrović Marija, Tomasović Maja, Marušić Eugenija, Kuzmanić Šamija Radenka. *University hospital Split*

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Neurogenic bladder is a bladder dysfunction caused by impaired innervation of the lower urinary tract. The most common causes of neurogenic bladder in children are congenital anomalies of the spinal cord. Acquired causes of neurogenic bladder in children can be: cerebral palsy, transverse myelitis, spinal cord tumors, trauma, progressive neurodegenerative diseases, multiple sclerosis, Guillain-Barre syndrome and iatrogenic damage to the pelvic plexus.

Urodynamic testing is the gold standard in the diagnosis and monitoring of children with neurogenic bladder.

The most common form of treatment is clean intermittent catheterization. In terms of drugs, anticholinergics are most commonly used. The main goals of treatment are to preserve renal function and achieve continence.

Children with neurogenic bladder are monitored in the Laboratory for Urodynamics and in the Voiding Disorders Clinic, Department of Pediatrics in University Hospital Centre Split. We retrospectively analyzed data from the medical records of children with neurogenic bladder in the period from Year 2015 to 2019.

Over a period of five years, neurogenic bladder was diagnosed in total of 20 girls and 16 boys. The mean age of diagnosis of neurogenic bladder was 8.3 years. The mean age of children with congenital anomalies of the spine and spinal cord was 4.9 years, while the mean age of children with acquired patterns of neurogenic bladder dysfunction was 11.0 years. Urodynamic examination was done in all children. The diagnosis of neurogenic overactive detrusor and detrusor sphincter dyssynergia was made in a total of 13 children with congenital anomalies and in 9 children with acquired anomalies. Thus, 61% of children had the most severe form of bladder dysfunction A total of fifteen children were treated with clean intermittent catheterization.

The anticholinergic was administered to ten children with neurogenic overactive detrusor and congenital anomalies and to eight children with acquired neurogenic bladder causes.

In most children with neurogenic bladder, early urodynamic diagnosis and early initiation of treatment may preserve renal function.

Further monitoring of our patients is needed.

376 THE VALUE OF CONTRAST-ENHANCED VOIDING UROSONOGRAPHY (CEVUS) IN THE DIAGNOSIS OF INTRARENAL REFLUX (IRR) IN CHILDREN WITH LOW-GRADE VESICOURETERAL REFLUX (VUR) – A CASE REPORT

Iva Palčić*, Andrea Cvitković Roić, Goran Roić. *Poliklinika za dječje bolesti Helena*

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Objective Many studies have shown that intrarenal reflux (IRR) is an important risk factor for renal scarring and reflux nephropathy in children with vesicoureteral reflux (VUR). The incidence of IRR diagnosed by fluoroscopic voiding cystourethrography (VCUG) ranges below 1% to a maximum of 10% and is detected only in children with higher grades of VUR.

In our institution we have been using ultrasound methods for the diagnosis of VUR since 2006. Contrast-enhanced voiding urosonography (ceVUS) combined with harmonic imaging and second-generation ultrasound contrast media, which we introduced in 2013, has high diagnostic accuracy compared to VCUG in the detection of VUR. This method enabled IRR detection in almost 12% of our patients with VUR.

The diagnostic criterion for IRR using ceVUS is the appearance of contrast microbubbles outside the contours of the duct system or renal calyx and the entry of contrast into the renal parenchyma. By March 2021 we have had ten children with VUR gr II and IRR which demonstrates the possibility of ceVUS to detect IRR in children with low-grade VUR as well. We report one of the children with low-grade reflux and IRR.