Kidney donation after circulatory death; an opportunity to expand the donor pool

C. O'Connell[1], A. Ferede[1], Y. Williams[1], P. O'Kelly[1], J. Forde[1], P. Mohan[1], R. Power[1], G. Smyth[1], D.M. Little[1], J. O'Rourke[2]
[1]Dept. Transplantation, Urology & Nephrology, Beaumont Hospital; [2]Dept. Anaesthesiology & Intensive Care Medicine

Introduction: Donation after circulatory death (DCD) is the process by which organ donation occurs after death is declared by cardio-respiratory criteria, as distinct from patients who meet the neurologic criteria for donation after brainstem death (DBD). Organ donation in this circumstance poses ethical and technical challenges for both patients and doctors, but has the potential to be successful with careful donor and recipient selection.
Methods: We performed a retrospective review of all kidney transplants after circulatory death in our centre from the beginning of the programme in 2011 to 2018, and compared this group to transplants from DBD donors during the same period.
Results: From 2011–2018 we performed 62 kidney transplants from DCD donors. 37% of DCD transplants had delayed graft function, compared to 18% of DBD transplants ($p = 0.002$). Mean creatinine levels at 1 and 3 months post transplantation were 185 μmol/L and 146 μmol/L for DCD transplants, compared to 135 μmol/L ($p < 0.0001$) and 125 μmol/L ($p = 0.03$) for DBD transplants. At one year post transplant, mean creatinine level for DCD transplants was 124 μmol/L, compared to 119 μmol/L for DBD transplants ($p = 0.29$). There was no significant difference in graft survival or overall patient survival ($p = 0.17$) at 1 year.
Conclusion: DCD transplants have higher rates of delayed graft function, but long-term outcomes are comparable with DBD transplants. Thus, donation after circulatory death has the potential to increase the number of organs available for transplant, and is a viable option with experienced ICU and transplant teams and newer developments in organ preservation.

Bladder dysfunction in Down's syndrome

N. Bhatt[1], L. Murchison[2], M. Kulkarni[2], G. Yardy[2], A.B. Mathur[1]
[1]Department of Urology, Ipswich Hospital, Ipswich, United Kingdom; [2]Department of Paediatric Surgery, Norfolk and Norwich University Hospital (NNUH), Norwich, United Kingdom

Introduction: The non-neurogenic neurogenic bladder (NNB) has been recently described in patients with Down's Syndrome (DS). Our aim was to report the incidence, demographics, presentation, complications and management of DS patients with NNB.
Methods: A systematic review was performed using PRISMA guidelines and search terms "(((trisomy 21) OR down's syndrome)) AND ((‘non-neurogenic’) OR voiding dysfunction)" in the search engines MEDLINE and SCOPUS. We also include a case series from two paediatric urology centres.
Results: A total of 48 patients with NNB and DS were included, of which five were from our series, the pooled incidence of this syndrome in DS is 26%. Mean age was 14.75 years (newborn to 42 years), the male to female ratio was 2.2:1. Functional constipation was present in 77%, recurrent urinary tract infections, including febrile infections and urosepsis in 51%, 80% of these had renal insufficiency at presentation and 40% patients required surgical intervention. Medical treatment and behavioral modification was successful in over half the patient while intermittent catheterization was less successful. We provide a pragmatic management flowchart for this condition.
Conclusion: This is the largest cohort of patients with NNB in DS. This condition is not uncommon and can have potentially serious consequences requiring operative intervention. Early identification and management of this condition is imperative to protect the renal tract, whilst screening for urogenital anomalies in DS is currently not performed, we recommend at the very least a thorough history of bladder function in all DS patients is necessary to identify these cases early.

Sacral neuromodulation in urology: early Irish experience

A.U. Nic an Ríogh, K. Breen, J.C. Forde
Department of Urology, Beaumont Hospital, Dublin, Ireland

Introduction: Sacral neuromodulation is an established treatment for voiding dysfunction. Indications include refractory over-active bladder and non-obstructive urinary retention. The aim of this study was to summarise our early experience with the sacral neuromodulation and assess patient outcomes.
Methods: A prospective database was maintained of patients who underwent sacral neuromodulation using the InterStim™ II system (Medtronic, Minneapolis, MN, USA) by a single surgeon between March 2017 and March 2019. Data recorded included patient demographics, pre-op ICIQ-OAB questionnaire scores and operative details. Patients who subsequently went on to have a permanent device inserted and who still have this device in situ were contacted by telephone and an oral questionnaire was carried out including a post-operative ICIQ-OAB score.
Results: During this two year period, 39 patients underwent a trial stage of sacral neuromodulation with InterStim™. Nineteen patients underwent percutaneous nerve evaluation (PNE) and twenty patients underwent a trial with a tined lead. Eighteen patients (46.1%) subsequently proceeded to implantation of a permanent device. Two patients (11.1%) underwent device explantation secondary to pain ($n = 1$) and infection ($n = 1$). Those undergoing the procedure for refractory overactive bladder had the best outcomes with 78.5% reporting a significant improvement in their symptoms post implantation of permanent InterStim™. The mean ICIQ-OAB score post-op was 6.6 (range 0–12).
Conclusion: Sacral neuromodulation is an effective tool for managing refractory voiding dysfunction. Careful patient selection is necessary and management of patients' expectations is essential to successful outcomes.

Use of the SF Qualiveen questionnaire to monitor treatment response in Neurourology patients

I.M. Pina[1], P. Somov[1], R.N. Khadr[1,2], M.S. Floyd, Jr[1,2]
[1]Departments of Urology; [2]North West Spinal Cord Injury Unit, Southport & Ormskirk NHS Foundation, Trust, Town Lane, Southport, Merseyside, PR8 6PN, UK

Introduction: Neurourology accounts for 10% of a general urologist's workload. Appropriate follow up of neurourology patients is paramount to preserve renal function, ensure upper tract integrity, continence and optimise quality of life. Questionnaires such as the IPSS and the IIEF 5 are widely used in urology. Specific to neurourology the SF Qualiveen questionnaire has been developed to monitor symptom progression in neurogenic bladder patients.[1] A total of 4 domains are assessed: Bother with limitations, fears, feelings and frequency of limitations.
Methods: A pilot study of patients attending a dedicated neurourology clinic was performed. For each patient SF Qualiveen scores were