Sacral Tarlov cysts surgical treatment by clipping
Simona Bistazzoni¹, Gualtiero Innocenzi¹, Vincenzo Esposito², Serena Tola¹, Jacopo Lenzi², Emiliano Passacantilli², Giampaolo Cantore¹
¹Neurosurgical Department IRCCS NEUROMED Pozzilli (IS) - Italy,
²Neurosurgical Department, “Sapienza” University, Rome - Italy

The first description of perineural cysts of the spinal region is credited to Isadore M. Tarlov during his postmortem study of filum terminale in 1938. The incidence of sacral perineural cysts has been estimated 1.5% to 4.6%, but symptomatic cases are rare, constituting less than 1% of the total. These cysts, when symptomatic, cause a variety of symptoms, including radicular pain, paresthesias, and urinary or bowel dysfunction. The origin of these lesions is controversial and unclear. There remains a great deal of controversy regarding the optimal treatment of symptomatic Tarlov cysts. Many methods (surgical and non-surgical) have been used to treat these symptomatic lesions, with variable results. Between 1986 and 2011, we treated 19 patients (14 female, 5 male) ranging from 16 to 67 years of age (mean 45.4 yrs) for symptomatic perineural sacral cysts, using a new technique which consists in cyst remodelling around the root using titanium clips. The average follow-up time was 122.6 months (range 9 ms- 25yrs). Preoperative symptoms were perianal and perineal pain in 10 cases, leg pain in 5 cases, complete urinary dysfunction in 4 and incomplete urinary dysfunction in 11 cases confirmed by pre-operative urodynamic studies. The vertebral level of the cysts was S1 in 6 cases; S1-S2 in 7 cases; S2-S3 in 3 cases; S3 in 3 cases. In 10 cases there were multiple cysts. Sixteen (84.2%) of the 19 patients experienced complete or substantial resolution of pre-operative symptoms and neurological deficits after surgery. No patient reported complications. Our technique is valid, safe, rapid and effective both in avoiding CSF leakage and resolving bladder dysfunction when urinary symptoms are incomplete and discontinuous.