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THE CLINICAL IMPORTANCE OF PUDENDAL NERVE COURSE

Hypothesis / aims of study

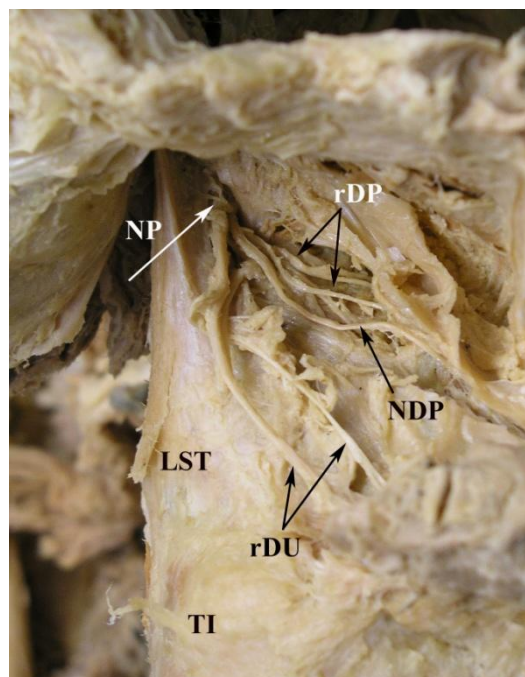
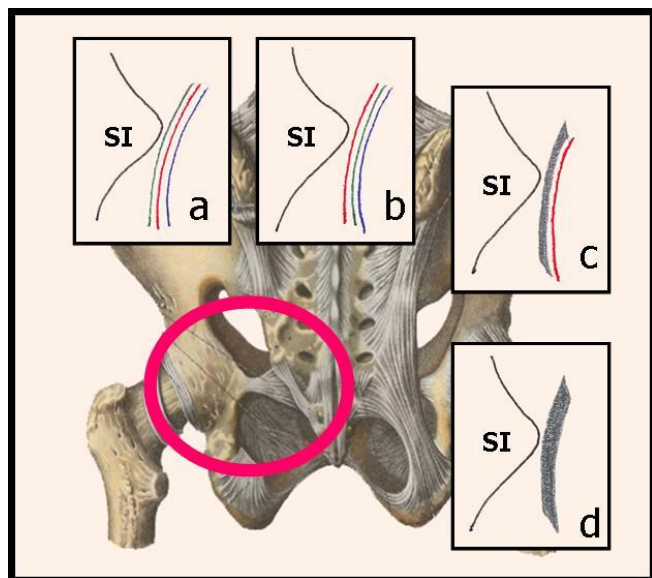
In many medical disciplines clinical issues associated with the course of the pudendal nerve and its innervation region can be expected. In symptomatology a wide range of disorders, including disorders of the urinary and faecal continence, chronic pelvic pain, disorders in the sexual functions can be found. The aim of the study was to specify in detail the course of the pudendal nerve for the clinical usage.

Study design, materials and method

Thirty-seven lower limbs fixed by the formol method and one specimen fixed by the method according to Thiel were used to identify and document the detailed course and ramification of the pudendal nerve, using visual control and subsequently the Zeiss Opti-Micro surgical microscope. Arrangement of branches was examined in two regions – dorsally to the sciatic spine and the lesser sciatic foramen.

Results

Ramification of the nerve with regard to its course was divided into four main groups – the group where the dorsal nerve of penis/clitoris lies between the trunks for the muscles of the pelvic floor and branches for the urogenital diaphragm (42.3%), the group where the dorsal nerve of penis/clitoris lies close to the sciatic spine, with the following branches for the pelvic diaphragm and most medially for the urogenital diaphragm (38.5%), the group where the common trunk of muscular branches for the urogenital diaphragm and the pelvic diaphragm and the dorsal nerve of penis/clitoris runs separately in the most medial direction (15.4%), the group where the trunk of the pudendal nerve runs dorsal to the sciatic spine (3.8 %).



Figures: Ramification of pudendal nerve after lesser sciatic foramen: NP – nervus pudendus, rDP – muscular branches for diaphragma pelvis, NDP – nervus dorsalis penis, LST – ligamentum sacrotuberale, rDU – muscular branches for diaphragma urogenitale, TI – tuber ischiadicum

Interpretation of results

Results were evaluated from the viewpoint of the treatment of chronic pelvic pain, including pain associated with tumors, the study provides description of the locations that can be best used for local conducted anaesthesia. The detailed description of the course of individual rami may serve also for their electric stimulation as a help for urinary and faecal incontinence treatment too. From the viewpoint of traumatology - an increased incidence of late sequelae can be expected, even in case of a well healed bone trauma.

Conclusion message

Further specification of pudendal nerve course description may lead to the increased quality of life of the patients due to increasing of portfolio of methods of treatment.

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| <i>What were the subjects in the study?</i> | NONE |