Fecal incontinence

Fecal incontinence (FI) has a multifactorial pathophysiology with a severe social impact. The most common cause for FI is pudendal nerve damage, which mostly occurs in women during or after labor. A better understanding of the pathophysiology is required to optimize treatment of FI. In this study, we evaluate the use of a novel pelvic nerve damage rat model of FI.

This new model simulates the forces on the pelvic floor during labor by prolonged transvaginal, retrouterine intrapelvic balloon distention in female rats. Number of fecal pellets produced per day and defecation pattern was compared between the experimental and control group for 2 weeks. The cages of the rats were divided in food, nesting and latrine areas to evaluate changes in defecation pattern. The FI Index (FII) was calculated to assess the ratio of fecal pellets between the non-latrine areas and the total number of pellets. A higher score represents more random distribution of feces outside the latrine area.

Total number of fecal pellets was higher in the experimental group as compared with the controls. In both groups most fecal pellets were deposited in the nesting area, which is closest to the food area. The experimental group deposited more fecal pellets in the latrine area and had a lower FII indicating less random distribution of feces outside the latrine area.

Transvaginal, retro-uterine intrapelvic balloon distention is a safe and feasible animal model simulating the human physiologic impact of labor by downwards pressure on the pelvic floor ¹⁾.

2015

A 32-year-old woman with remotely repaired spinal defect who experienced subarachnoid hemorrhage and underwent anterior communicating artery aneurysm clipping. Post-operatively, she developed urinary and fecal incontinence as the sole presenting symptom of communicating posthemorrhagic hydrocephalus. New neurological deficits in this population can also be attributed to recurrent cord tethering or syrinx, both of which were demonstrated on her lumbar spine MRI, but her incontinence resolved with external ventricular drain placement and cerebrospinal fluid diversion. There are few case reports of patients with closed neural tube defects and hydrocephalus and none in the adult population. Neurological change in patients with any history of spinal dysraphism may reflect altered cerebrospinal fluid dynamics affecting either end of the neuraxis².

1)

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