A case report of severe thrombosed hemorrhoids and rectal prolapse due to airplane toilet vacuum injury

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A case report of severe thrombosed hemorrhoids and rectal prolapse due to airplane toilet vacuum injury

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Abstract

Introduction

This is the first reported case of severe thrombosed hemorrhoids and rectal prolapse due to an airplane toilet vacuum injury. This case report is important due to the common use of vacuum toilets on airplanes.

Case report

An 88 year old woman suffered injury to the perineum, rectal and hemorrhoid prolapse, fecal incontinence, and anal pain after becoming “stuck” on an airplane toilet seat, subsequent to inadvertent operation of the vacuum system while still seated. Grade IV hemorrhoid prolapse and prolapse of some rectal mucosa was confirmed on examination in the emergency room. Over the course of several months, the prolapse eventually resolved, and the sphincters regained their tone almost completely.

Conclusion

This case presents a serious and painful medical outcome resulting from the use of an airplane toilet. Thrombosed hemorrhoids resolved in an elderly woman over the course of several months.

KEYWORDS: hemorrhoids; prolapse; fecal incontinence; anal pain, airplane toilet
Introduction

A recently published retrospective study of in-flight medical emergencies occurring on 5 domestic and international airlines during a 34 month period revealed a rate of 16 medical emergencies per 1 million passengers, or 1 medical emergency per 604 flights [1]. Syncope or presyncope, respiratory symptoms, and nausea or vomiting were the most common problems. Of the patients for whom follow-up data were available, 26% were transported to a hospital following flight landing. Here we present a case report of anal and rectal injury that occurred as a result of an airborne lavatory vacuum system dysfunction on a local flight in Israel. This too was an injury that mandated transport to the local emergency room. To our knowledge it is the first such case to be published.

Case presentation

During a 45 minute airplane flight, an 88 year old woman became "stuck" on a toilet seat when the vacuum system was accidentally switched on while she was still seated. She immediately began suffering from severe pain in the perineal and anal area. On arrival at the emergency room at the local hospital she was stable and afebrile. Intake and examination by both an emergency room specialist and a surgeon confirmed injury to the perineum, rectal and grade IV hemorrhoid prolapse, fecal incontinence, and severe anal pain (Figures 1-2).
Conservative medical treatment was prescribed, comprising Mg-sulfate and Proctoglyvenol (a topical preparation of steroids and lidocaine). A repeat Hemoglobin level, which was obtained after the rectal exam showed fresh blood, was stable and showed no indication of significant continued bleeding. The patient refused the topical treatment with the magnesium-sulfate prescribed, and was discharged from the emergency room with a prescription for stool softeners and a recommendation to be monitored by a surgeon as an outpatient.

Severe pain precluded a full rectal exam in an outpatient clinic, but cutaneous hematomas, severe swelling, and mucosal tears of the hemorrhoids and the protruding rectal mucosa were apparent. The patient refused to be admitted to the surgical ward for observation. During follow-up visits, which occurred almost daily over the course of the following week, she complained of complete fecal incontinence that mandated the use of diapers, and noted that she still suffered from continued severe pain.

The patient was followed for several months by a colorectal surgeon, with gradual reduction in pain. The prolapse of hemorrhoids and rectal mucosa eventually resolved (Figures 3-4), and the sphincters almost completely regained their tone.

Discussion

To our knowledge this is the first report of a case in which prolapse of the hemorrhoids and some distal rectal mucosa occurred acutely. We describe
the presentation of grade IV prolapsed hemorrhoids following suction injury to a woman's anal region by an airplane toilet system. Full rectal prolapse is defined as the protrusion of the rectal wall through the anus. It is not common and most often presents in women over age 50 years. According to the classic definition, the prolapse protrudes the full thickness of the wall; however, sometimes, as in the case described, the prolapse is partial. Prolapsed hemorrhoids are far more common, though here too, no report of an acute traumatic prolapse was given. Prolapsed hemorrhoids are classified according to their reducibility, where grade IV represents irreducible hemorrhoids. Grade IV prolapse are rare, as demonstrated by their comprising only 0.5% of the cases of prolapse described in a recent prospective study [2].

Prolapsed hemorrhoids can complicate with thrombosis and severe pain. Thrombosis is generally treated medically at first, but prolapsed hemorrhoids may eventually need more definite treatment, with either office procedures such as band ligation or surgical hemorrhoid ligation or hemorrhoidectomy. In a study of 231 consecutive patients with thrombosed external hemorrhoids, 51.5% were managed conservatively [3]. The average time to symptom resolution among those treated conservatively was 24 days. The patient described herein suffered from pain and prolapse for a number of months.

Conclusions
We reported an unusual, painful, and debilitating experience that was caused by a device in wide daily use. The patient improved greatly during several months of follow-up, supporting the benefit of a conservative approach to treatment of thrombosed hemorrhoids in elderly and frail patients. This case also prompts a recommendation that airborne lavatories be re-designed so that the vacuum cannot be turned on while a person is still sitting on the seat, or that the seat should at least be fitted with holes that would prevent the suction effect around the anal region.
Figure legends

Figures 1 and 2. Pictures appear in chronological order, showing the improvement observed during follow-up. Note the graphic distribution of the petechia, in the form of the toilet-seat.

Picture 3. Resolution of the petechia. Prolapse is still evident.

Picture 4. Full resolution of prolapse.
References

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Figure 1

Figure 2