J Vet Clin 26(1) : 101-103 (2009)

Journal of Veterinary Clinics
www.ksvc.or.kr

Urethroperineal Fistula Associated with a Severe Ulcerative Dermatosis in a Puppy

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(Accepted : January 29, 2009)

Abstract : 40-day-old mixed male puppy was presented with a 10-day history of tenesmus and extensive ulcerative lesion of perineum. At physical examination, the dog was voiding mainly from an orifice in the perineal fistula. On fistulogram, a urethroperineal fistula was diagnosed. The dog was treated by wet dressing for wound management and antibiotics for 4weeks. Subsequently, the patient improved and no complication or recurrence was presented.

Key words **:** tenesmus, urethroperineal fistula, fistulogram, dog.

Introduction

Urethroperineal fistulas may occur either as congenital or acquired anomalies in humans(1,3,4). Urethroperineal fistula is a rare disorder in dogs with only 1 case previously reported(5). Its management is sometimes complex and depends on the location and/or extension of fistula. We report a puppy with a urethroperineal fistula associated with extensive skin problem.

Case

A 40-day-old 2.0 kg mixed male puppy was presented with a 10-day history of tenesmus and extensive ulcerative lesion of perineum. The dog was depressed and very thin with a body condition score of one. The ulcerative perineal skin lesion was extended to perianal region with a large fistula orifice (Fig 1A). At physical examination, the dog was voiding largely from an orifice in the perineal fistula. There was dribbling from urethral orifice while urinating. CBC and biochemical parameters were within normal range.

There was poor visualization of serosal details on the abdominal radiograph, most of which are consistent with the immaturity. Survey radiograph showed multiple small-sized bladder stones (Fig 2A). The perineal fistula was further evaluated by a fistulogram (10 ml of iohexol (300 mgI/ml)) to reveal the fistula tract. Fistulogram showed a contrast filling in the urinary bladder and extensive leakage of contrast medium around anterior membranous urethra (Fig 2B).

Based on the findings, a tentative diagnosis of urethroperineal fistula was made. The dog underwent bladder washout technique for elimination of small sized bladder stones with 500 ml sterile saline. The dog was hospitalized with 4-week course of antibiotic therapy, wet dressing with saline irrigation every 1 hour during daytime and silver sulfadiazine application during nighttime. The general behaviour, condition and appetite improved rapidly upon fluid and antibiotic

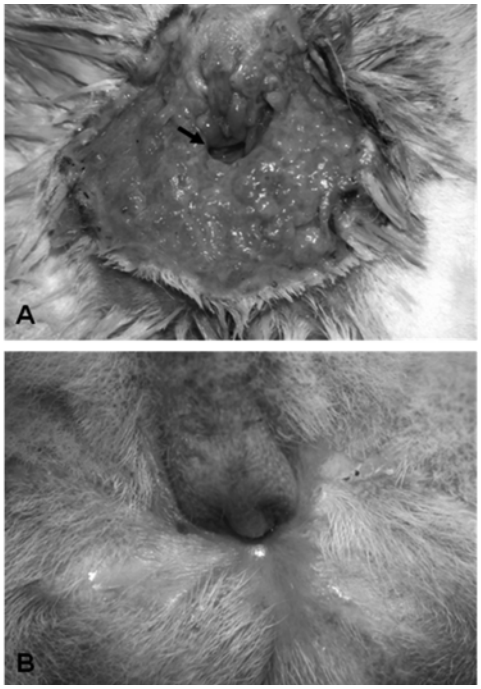

Fig 1. (A) Close-up of the perineum at first referral, showing a severe extensive ulcerative lesion. A fistula orifice (arrow) is obviously visible beneath the intact anus. (B) The same dog 5 weeks after beginning therapy. There is no fistula tract and ulcerative skin lesion was resolved.

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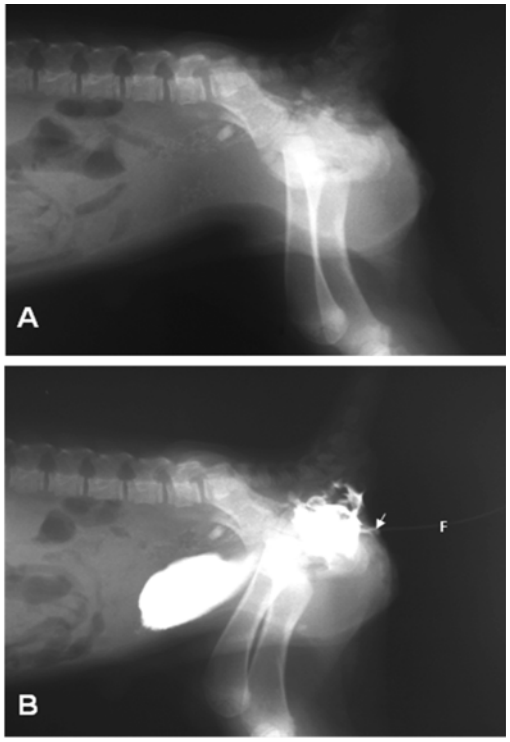

Fig 2. (A) Survey radiograph of 40-day-old male mixed dog. There are multiple cystic calculi. Intra-abdominal contrast is poor because of a lack of fat. (B) Fistulogram. A fistula (arrow) extends from the perineal skin to the urinary bladder. There is an extensive leakage of contrast medium into pelvic soft tissues around anterior membranous urethra. The feeding tube (F) is visible. A radiographic diagnosis of urethroperineal fistula was made.

therapy. After 5 weeks, the skin lesion was resolved leading to heal the fistula tract completely and micturition through the urethra is normal (Fig 1B). The dog experienced no further recurrence or complications from the fistula.

Discussion

The etiology of urethroperineal fistula is not clear although there are some hypothesis(5). It is hypothesized that urethroperineal fistula can occur as a result of deep skin damage caused by severe perineal ulcerative skin disease. According to other hypothesis, due to secondary urethral calculus caused by urinary tract infection, fistula followed by urethral rupture can take place at the site at which urethral calculus are present. Lastly, congenital urethroperineal fistulae have been considered as variations of urethral duplication and urethrorectal fistula. Like urethrorectal fistulae, urethroperineal fistulae are formed from incomplete fusion of the urorectal fold. However, due to subsequent anal plate development and sphincter formation, urethroperineal fistulae open adjacent to the anal sphincter(2). It is not apparent to prove, especially among previously mentioned hypothesis, as to what or how the fistula has occurred in this case. In addition, apart from hypothesis already mentioned previously, it may be necessary to consider other hypothesis to figure out the causes. In this case, however, on a basis of broad skin problem and good results without surgical correction, a possible explanation can be that fistula may result from cellulitis secondary to extensive ulcerative skin condition. However, it is not possible to confirm as to what actually caused such skin lesion in this case. Our patient reported no dribbling from the perineal area 5weeks after the treatment. The radiographs in this patient provided an excellent example of urethroperineal fistula.

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자견에서 발생한 중증의 궤양성 피부증과 관련된 요도회음누관증

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요 약 : 40일령의 수컷자견이 10일간의 이급후증과 회음부의 광범위한 궤양성 피부소견을 주증으로 내원하였다. 신체검사상에서 본 환자는 회음누관부를 통하여 배뇨를 실시하였으며, 누관조영법을 통하여 요도회음누관증을 진단할 수 있었다. 이후 4주간의 피부손상부위의 관리와 항생요법을 통하여 누관증을 치료하였으며, 현재까지 누관과 관련된 합병증은 관찰되지 않고 있다.

주요어 : 이급후증, 요도회음누관증, 누관조영, 개.