Introduction
Phimosis is a condition with too small opening of the prepuce. An abnormally small preputial orifice, resulting in inability to extrude the penis, may be congenital or acquired as a result of neoplasia, edema or fibrosis following trauma, inflammation or infection. Clinical signs are variable (Slatter, 2003).

Usually, the problem is unnoticed until dog attempts to mate and is unable to copulate. Diagnosis is established by physical examination of prepuce and penis. In severe cases, it can cause problems with urination, as urine will build up within the sheath and then slowly drip out. Treatment depends on severity of stenosis and intended use of dog. If the dog is not used for breeding, therapy probably is not needed, although castration should be considered to prevent arousal (Fossum, 2002). Surgical enlargement of preputial orifice is indicated if the animal is to be used for breeding, if phimosis contributes to balanoposthitis or phimosis interferes with normal micturition.

History
A two month old pup (Spitz mixed breed) was presented for surgical treatment of phimosis due to congenitally stenotic preputial orifice. The owner had noted the stenotic preputial orifice and preputial swelling when the pup urinated. Urine was collected in preputial cavity and slowly came out drop by drop. Fine-needle aspiration of swelling revealed urine pooling in prepuce. Repeatedly aspirating urine from prepuce did not resolved the problem.

Clinical Examination and Diagnosis
On day of presentation, the pup was bright and alert and had good body condition. A large, fluctuant swelling of prepuce (Fig. 1) was noted. The penile mucosa was free from preputial mucosa in preputial cavity. At the time of urination, urine was collected in preputial cavity and came out drop by drop from preputial cavity. The urine was normal in color. Physical examinations revealed normal heart rate, pulse rate, capillary refilling time, respiration rate and color of mucous membrane. Feeding and drinking of water was found normal. The clinical signs, symptoms and clinical examination, confirmed diagnosis as congenital phimosis.

Surgical Treatment
Pre-operative, the patient was complete off feed and off water since 6 hours. The patient was premedicated with Atropine sulphate (0.02 mg/kg s/c). The preputial swelling was aspirated. Anesthesia was induced with intravenous combination of Ketamine hydrochloride (10 mg/kg) and Diazepam (0.5 mg/kg) mixture and anesthesia was maintained with same. The dog was placed in dorsal recumbency. Its ventral abdomen and prepuce were clipped, aseptically prepared and draped in the standard fashion.

Abstract
A two month old pup was presented with congenital preputial defect. Preputial stenosis was repaired by surgical intervention under general anesthesia. Postoperatively, the pup recovered uneventfully without any complications. Sutures were removed on 8th post-operative days. No adhesion of penis was noticed and urination was completely normal.

Keywords: Congenital; phimosis; pup; treatment
Pre-operative, antibiotic therapy consisted of intravenous Amoxycillin (15 mg/kg) and NSAID consisted Meloxicam\(^a\) (0.2 mg/kg).

The preputial orifice was reconstructed by removing a triangular wedge of tissue from dorsal aspect of orifice. The triangular wedge resection was oriented with base at mucocutaneous junction to create a larger preputial opening. The subcutaneous tissue along the ventral aspect of prepuce was closed by using 3-0 polyglactin 910 in a simple continuous pattern. The skin was closed by using 3-0 polyglactin 910 in a cruciate pattern. The patient recovered from anesthesia without complications (Fig. 3-4).

The dog wore an Elizabethan collar for the next weeks to prevent licking of the surgical site. The day after surgery, the dog was bright and alert.

Fig. 1 and 2 : A large, fluctuant swelling of prepuce was noted on physical examination

Fig. 3 and 4: Reconstructive surgery of preputial orifice

Prepuce was slightly swollen and the patient was passing urine freely. The dog was interested in food and normal feeding was started from next day of surgery. Because of patient discomfort, the penis could only be lubricated with Pendistrin-SH\(^b\) once or twice a day, instead of every four to six hours. Amoxicillin-Clavulanate potassium (12 mg/kg given orally twice a day for four days) was started next day morning and Meloxicam (0.2 mg/kg given orally twice a day for three days) was started next day morning. Topical Pendistrin-SH\(^b\) was used to provide additional local protection against infection from the surgical site. Seven days after surgery, prepuce appeared normal and uneventful surgical wound healing was occurred. The skin sutures were removed on 8\(^{th}\) post-operative days.

Discussion
In normal dogs, cats, bulls, or horses, the penis is fused with prepuce throughout its length at birth.
During prepubertal development, the penis grows and the relationship between penis and peripenile tissues changes (Arthur et al., 1996). In addition, connective tissue joining penis and prepuce breaks down (Arthur et al., 1996). This breakdown is mediated by androgens produced by testis, which are also responsible for sexual differentiation of male genitalia, descent of testis into scrotum and keratinization of preputial epithelium (Roberts, 1986). For this reason, it is important to fully evaluate a patient with suspected congenital phimosis for additional congenital problems.

Congenital phimosis has been described in young dogs, cats, and stallions (Roberts, 1986) and can result from developmental anomaly of penis or prepuce. Such anomalies include a short penis or retractor penis muscle, persistent adhesions connecting prepuce to penis, or stenosis or absence of preputial orifice (Arthur et al., 1996). Congenital stenosis of preputial orifice has been reported to be breed-related in German shepherds, golden retrievers, Bouvier des Flandres, and Labrador retrievers (Papazoglou and Kazakos, 2002; Arthur et al., 1996).

Phimosis has been recorded in most domestic species (Arthur et al., 1996). Some sources define it as an inability to protrude the penis from prepuce because of a stenotic or an absent preputial orifice (Papazoglou and Kazakos, 2002; Arthur et al., 1996; Kahn, 2006); however, another definition is simply the inability to protrude penis from prepuce (Roberts, 1986; Fossum, 2002; Johnston et al., 2001; Olsen and Salwei, 2001). This latter definition is preferable because an inability to protrude penis has many causes, both acquired and congenital and may even be species-dependent. Acquired phimosis in dogs most commonly results from lacerations after trauma, preputial sucking by littermates or licking by the dam. In addition, neoplasia such as mast cell tumors, transmissible venereal tumors, squamous cell carcinoma and perianal gland adenomas accounts for many cases (Papazoglou and Kazakos, 2002).

References