

CLINICAL ARTICLE

Pakistan Vet. J., 25(2): 2005**CONGENITAL CONJOINT TRIPLET KITTENS (TRIPLOPAGUS):
A CASE REPORT**

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**HISTORY AND CLINICAL
EXAMINATION**

Four days-old three conjoint kittens were brought to the outdoor clinic of Civil Veterinary Hospital, Tandlianwala, District Faisalabad for the surgical treatment of conjoint kittens. Clinical examination revealed that skin and abdominal muscles of three kittens were attached to one another around umbilicus region. The vital parameters of health (temperature, pulse, respiration) were within normal ranges for kittens (Dukes, 1993).

SURGICAL TREATMENT

The sites were prepared aseptically for surgical management. Area was anesthetized by infiltrating 2% xylocain hydrochloride (Akhter, 1999). An incision was made at conjoint area of abdomens of three kittens and they were separated from one another. Bleeding blood vessels were ligated with chromic catgut and the subcutaneous tissue was closed with 3-0 absorbable suture. Once abdominal incision of adequate length was completed, the wound edges were protected with laparotomy pads moistened with sterile saline solution. The surrounding and underline viscera were packed with additional moistened laparotomy pads to prevent abdominal contamination. Skin debris was excised, followed by closure of long incisions with braided surgical silk No.2 in all kittens one by one. A 100 ml solution of 2.5% dextrose and half strength lactated Ringers was administered at the rate of 10 ml/kg/hour intra-peritonally, as hypoglycemia was suspected (Slatter, 1985).

Postoperative measures

Wounds were dressed aseptically daily with tincture of iodine until complete healing, followed by removal of stitches on 10th day postoperatively. Ampicilline 20 mg/kg IM was

given for three days as postoperative measure (Birchard and Sherding, 1994).

DISCUSSION

Although congenital abnormalities are present at birth, they may not necessarily be apparent at that time. For example, a congenital abnormality of the heart may not produce any sign in a young kitten, but in time, as the kitten grows and the demands on the heart increase, characteristic signs of heart disease may develop.

All congenital abnormalities are not hereditary. Some certainly result from gene mutations, but there is another important group of congenital deformities, the so-called non-genetic developmental abnormalities. These are caused by disturbance of the development of the kittens in the uterus by some non-hereditary factors like infections, drugs and environmental factors e.g. exposure to high ambient temperature during pregnancy (Wills and Wolf, 1993). Other factors may be responsible for developmental problems and these may be very difficult to identify e.g. inadequate development of the placenta. This is not uncommon in humans and may lead to intra-uterine growth retardation.

A similar situation may possibly occur if the placenta fails to function correctly. It is the 'lifeline' for the fetuses, providing all their requirements for life, and if its function is impaired, the growth of the fetuses would suffer. Such a problem may be particularly common in polytocous animals such as the cat, which usually has many youngones in a litter. There may consequently be competition between the placentae for the available uterine space and some may fail to develop fully.

A strong breed disposition (i.e. the condition occurs particularly frequently in a specific breed) suggests some hereditary involvement. Any change in management, especially of diet, and any history of illness during pregnancy may be relevant; as such factors may be responsible for non-genetic developmental abnormalities. "Osteogenesis imper-

fecta" is not a genetic defect in cats because litter mates were often affected and seems to be a nutritional disease caused by all meat diets high in phosphorus and low in calcium (Riser, 1961).

Most congenital deformities are inherited as recessive factors, in which case both parents are 'carriers' of the condition. Conjoint twins in which the components or components parts are symmetrical are Diplopagus monsters or "Siamese" twins. Triplopagus is extremely rare. Conjoint twins arise from a single ovum and are monozygotic. They are seen rarely in cats (Arthur, 1956).

Occasionally, it becomes apparent that a congenital abnormality is particularly common in a certain breed. This does not necessarily indicate that the abnormality is inherited, and it is possible that certain breeds may tend to express non-genetic developmental deformity. Breed variation in the expression of congenital deformities is generally less significant in cats since there is not such a range in size and conformation between breeds.

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