

## TREATMENT OF CAPRINE DYSTOCIA WITH SPECIAL REFERENCE TO C.S.

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### SUMMARY

Cesarean section (C.S) was performed on 81 out of 172 case of caprine dystocia in local and shami breed goats, aged between 2-4 years old. The animals were brought in by owners and referred to Department of Theriogenology, College of Veterinary Medicine, University of Baghdad and another two Veterinary clinic centers around Baghdad during the kidding seasons of 1990-1993. C.S was a safe method of kid delivery with a high success rate (95%), followed by manual correction and traction (89.4%). The lowest response was obtained by pharmacological treatment 46.6%.

The most common indications of C.S in does were ring womb 45.5%, oversized fetus 35.8%, vaginal prolapse near the end of gestation 16% and fatal monsters 2.4%. C.S was performed more on primiparous does (39.6). Does having male kids appeared to be more likely to require C.S 61.3% than those having female kids 38.7%. Survival rate of kids delivered by C.S was 66.8%. The results obtained showed that C.S was most reliable and safe procedure to deal with dystocia in goats.

### INTRODUCTION

Dystocia is one of the important obstetrical problems in domestic goats, which unless relieved, leads to death of the fetus and sometimes the dam<sup>(1,2)</sup>.

Incidence of dystocia in domestic goats may ranged from 3-5%<sup>(3)</sup>. It has been reported that C.S was a safe method of kid delivery with high success rate 98%<sup>(4)</sup> and favorable subsequent prognosis<sup>(3,4)</sup>.

The most common indications for C.S in caprine include failure of cervical dilatation (ring womb), immaturity, oversized fetus, hernia and presence of abnormal fetus<sup>(3,4,5)</sup>. Post operative complications such as shock, toxemia, septic metritis, peritonitis and retained placenta, play an important role in the determination of the success rate of C.S<sup>(1)</sup>.

This study was designed to evaluate the different methods used for treatment of dystocia in goats under clinical conditions and to identify factors influencing success rate of C.S.

#### MATERIAL AND METHODS

The study was conducted on 172 clinical cases of dystocia in goats during the kidding seasons of 1990-1993. Age of the does ranged from 2-4 years. Cases of dystocia were diagnosed after careful vaginal examination and then subjected to one of the following treatments:

1. Correction and traction of the maldisposed feti (n=76).
2. Medicinal and hormonal treatment of does suffering from ring womb and/or uterine inertia (n=15). They were given a single dose of 2 mg estradiol benzoate I.M. (Intervet International B.V. Boxmeer, Holland). Plus 40 ml of calcium borogluconate S/C.
3. C.S was performed to relieve dystocia due to incomplete cervical dilatation (n=37), oversized feti (n=29), vaginal prolapse (n=13), fetal monsters (n=2).

C.S was performed according to Roberts, 1971<sup>(1)</sup>. Six tablets of utocyl (CIBA-GEIGY LTD, Basle, Switzerland) were placed in the uterine lumen after fetal withdrawing. Uterine incision was closed with double row of (Schmieden and Lembert) sutures of No.1 chromic

catgut. Antibiotic ointment was applied on the closed uterine incision<sup>(1)</sup>. 10,000 I.U./Kg of procain penicillin and 5 mg/Kg of streptomycine sulphate was injected I.M for three successive days as well as single I.M injection of 15 I.U oxytocine administered post surgically. Does appeared no vaginal discharge, or infected incision with normal body temperature post the operation were classified as having a positive response to C.S.<sup>(2)</sup>.

## RESULTS

The results of the different methods used for treatment of caprine dystocia were shown in Table (1). The C.S was the most effective method with (95%) successful rate, while manual correction and traction showed (89.4%) response. Poor results were obtained with the use of pharmacological treatments (46.6%). Incidence and number of cases required C.S were listed in table (2). Ring womb was found to constitute the highest cases that required C.S (45.7%), oversized fetus (35.8%), vaginal prolapse (16%) and fetal monsters (2.5%).

Table (3) showed records concerning delivery type, number, sex and survival rate of kids recovered by C.S. Twins were found to be the more common type of pregnancy in goats (49.4%), while single or triplete pregnancies were less common (35.8%) and (14.8%) respectively. In all types of deliveries that required C.S, the male to female ratio was infavor the male. However, the alive to dead ratio was affected by the type of pregnancy where the number of kids delivered alive increased with the increased number of kids in each pregnancy.

Table 1: Efficiency of treatments in caprine dystocia.

| Method                   | No. of cases | positive response | negative response | Efficiency |
|--------------------------|--------------|-------------------|-------------------|------------|
| 1. C.S                   | 81           | 77                | 4*                | 95%        |
| 2. Correction & traction | 76           | 68                | 8**               | 89.4%      |
| 3. Medicinal & hormonal  | 15           | 7                 | 8**               | 46.6%      |

\* Cases dead during & after operation.

\*\* Cases added to the No. of C.S.

Table 2: Indications of C.S.

| Causes of dystocia  | No. of cases | Unresponsive cases | % of cases |
|---------------------|--------------|--------------------|------------|
| 1. Ring Womb        | 37           | 2*                 | 45.7%      |
| 2. Oversized fetus  | 29           | 1*                 | 35.8%      |
| 3. Vaginal prolapse | 13           | 1**                | 16%        |
| 4. Fetal monster    | 2            |                    | 2.5%       |
| Total               | 81           | 4                  |            |

\* Cases dead after operation.

\*\* Cases dead during operation.

Table 3: Results concerning C.S delivery & kids

| Type of C.S. delivery | No. of cases | Rate of kidding | No. of kids kids recovered | M/F   | A/D   |
|-----------------------|--------------|-----------------|----------------------------|-------|-------|
| Single                | 29           | 35.8%           | 29                         | 18/11 | 20/9  |
| Twins                 | 40           | 49.4%           | 80                         | 49/31 | 58/22 |
| Triple                | 12           | 14.8%           | 36                         | 22/14 | 19/17 |
| Total                 | 81           |                 | 145                        | 89/56 | 97/48 |

## DISCUSSION

It has been considered that correction and traction of maldisposed feti is safe primary technique to relieve cases of dystocia<sup>(9&3)</sup>.

Although 68 out of 76 cases were corrected and successfully traced but failure of such technique would direct our attention to other techniques. However, treatment of delayed cases is usually unpromising since all forms of dystocia worsen with the passage of time<sup>(10)</sup>.

Positive response of ring womb and uterine inertia cases to medical and hormonal treatment was limited to 46.6% Table (2), this condition can be attributed to various reasons and predisposing factors such as hypocalcemia, hormonal imbalance, cervical sclerosis, parity and breed of the does<sup>(11,6,12)</sup>.

Success rate of C.S shown in Table (I) was 95%, this result is the best among other treatments and agreed with the findings of<sup>(9,3,4,13)</sup>.

Ring womb was the primary cause of dystocia that required delivery of kids by C.S. Thus majority of surgical operations were due to ring womb Table (2). 60.4% of does subjected to C.S were primiparous compared to 39.6% multiparous, This finding strongly suggested variations in pelvic dimensions(4&10). Does having male kids were more likely to require C.S (61.3%) than those having female kids (36.7%). This might be due to fact that male feti weight are usually heavier at birth than that of female feti<sup>(15 & 2)</sup>.

It is concluded from this study that all types of treatments used for delivering kids in dystocia cases, of goats were effective depending on the type of dystocia and it's causes. However, one should keep in mind that immediate surgical intervention should be available to deal with unresponding cases since this study showed that such surgical treatment gave very high successful rate.

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### الخلاصة

أجريت الدراسة على ١٧٢ معزة محلية وشامية كانت تعاني من عسر الولادة، تراوحت اعمارها بين ٣-٤ سنة من خلال مراجعتها فرع التوليد والامراض التناسلية في كلية الطب البيطري ومركزين بيطريين في ضواحي بغداد خلال موسم الولادات للاعوام ١٩٩٠-١٩٩٣ استخدمت ثلاث طرق لعلاج حالات عسر الولادة هي العملية القيصرية، التصحيح اليدوي ثم السحب والعلاج الهرموني وقد اظهرت نتائج العلاجات نسب نجاح هي على التوالي ٩٥% و٨٩.٤% و٤٦.٦% بالتعاقب، كانت دواعي استخدام العملية القيصرية الاكثر شيوعاً هي حالات تضيق عنق الرحم (٤٥.٥%) وكبير حجم الجنين (٣٥.٨%) وتدلي المهبل (١٦%) والتشوهات الجنينية (٢.٤%).

أجريت العملية القيصرية على (٦٠.٤%) من الحالات التي تلد لأول مرة مقارنة بالحالات المتعددة الولادة (٣٩.٦%). ان احتمالية اجراء العملية القيصرية في الماعز الحوامل بالذكور كانت (٦١.٣%) مقارنة للماعز التي كانت حوامل بأنثى (٣٨.٧%). ان نسبة بقاء المواليد الذين ولدو بالعملية القيصرية على قيد الحياة هي (٦٦.٨%).

وقد استنتج من هذه الدراسة ان العملية القيصرية طريقة آمنة يمكن الاعتماد عليها في علاج حالات عسر الولادة خصوصاً عندما يقوم بها اطباء بيطريون متخصصون تحت عناية مركزة للحالات قبل واثناء وبعد العملية.