

Retained Fetal Membranes and Its treatment in cows

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Abstract

The study was conducted on 70 cows of Friesian breed presented in al-Faihaa station, Babylon Governorate during the period from Oct. 2001 to Dec. 2001. The animal aged from 2 to 7 years. The aim of study to increase knowledge about incidence and treatment of retained fetal membranes (RFM). In this study 13 (18.6%) cows was observed suffering from retained fetal membranes (R.F.M.). The animals suffering from RFM were divided into three groups; the first group (n = 3) treated with 15 mg prostaglandin PGF2 α I.M.; the second group (n = 4) received 500 mg Uterine pessaries I.U. and the third group (n = 6) treated with 100 ml Lotagen I.U.. The 2nd and 3rd groups received manual removal with medical therapy. High success rate was obtained (100%) with PGF2 α treated group. Manual removal with antibiotics and treatment with Uterine pessaries plus Lotagen showed 50% and 66.7% response respectively with no a significant difference (P< 0.05) between methods. It was concluded from this study that the use of prostaglandin PGF2 α give a high success rate in the treatment of retained fetal membranes in cows.

احتباس المشيمة وطرق علاجها في الأبقار

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الخلاصة

أجريت الدراسة على 70 بقرة من سلالة الفريزيان تواجدت في محطة الفيحاء الواقعة في محافظة بابل خلال الفترة من بداية تشرين الأول 2001 إلى نهاية كانون الأول 2001 تراوحت أعمار الحيوانات من (2-7) سنوات . استهدفت الدراسة معرفة نسبة حدوث حالة احتباس المشيمة في الأبقار وطرق علاجها. كان عدد الأبقار التي تعاني من احتباس المشيمة 13 بقرة وبنسبة (18,6%) قسمت الأبقار المصابة إلى ثلاث مجموعات المجموعة الأولى (شملت 3 أبقار) عولجت باستخدام 15 ملغم من البروستوكلاندين PGF2 α في العضل والمجموعة الثانية (شملت 4 أبقار) عولجت باستخدام 500 ملغم من التحاميل الرحمية أما المجموعة الثالثة (شملت 6 أبقار) عولجت باستخدام 100 مل من محلول اللوتاجين داخل الرحم . كانت نسبة الاستجابة للعلاج بالبروستوكلاندين 100% أما نسبة الاستجابة للعلاج باستخدام التحاميل الرحمية واللوتاجين فكانت 50% و 66,7% على التوالي مع عدم وجود فروق معنوية بين الطرق الثلاثة . نستنتج من الدراسة أن استخدام البروستوكلاندين أعطى نسبة استجابة عالية عند علاج احتباس المشيمة في الأبقار .

Introduction

Retained fetal membranes is a common condition following parturition affecting cows and causes a great economic loss. The incidence in cattle was relatively high in Iraq reaches about 23% (1). The placenta has been considered to be retained when it is not expelled within 24 hours after parturition (2). The exact cause of RFM is still not known and this hampers the search for preventive and therapeutic measures (3,4). Various prophylactic and therapeutic approaches have been postulated by many workers ranging from no treatment to hormonal, chemotherapeutic, and manual removal (5,6,7). This study was designed to know the incidence of RFM and the effect of three different methods of treatments on the placental expulsion.

Material and methods

The study was conducted on 70 cows of Friesian breed presented in Al-Faihaa station, Babylon Governorate during the period from Oct. 2001 to Dec. 2001. The age of animals ranged from 2 to 7 years. The placenta was considered to be retained if not expelled within 24 hours after parturition. Thirteen cows suffering from retained fetal membranes were treated randomly as follows: The first group (n = 3) treated with 15 mg prostaglandin PGF₂α I.M. (Medco-erp BV Holland). The second group (n = 6) treated with 100 ml Lotagen (policresulenum, W. Germany)** Intra Uterine. The third group (n = 4) treated with 500 mg Uterine pessaries (oxytetracycline Hcl). Intra Uterine. Positive response was indicated when the fetal membranes expelled within 48 hours and the animals showed no complications. The complications include; fever, septic metritis, loss of appetite, depression, abnormal discharge. Statistical analyses were done using Chi – square distribution (8).

Results and discussion

Out of seventy cows, Thirteen cows suffering from retained fetal membranes. The prevalence of retained fetal membranes reached 18.6%. This percent was high than that reported by Amin (5) who reported an incidence of 12.98% and less than that reported by Majeed (1) and AL-Haidary (6) who reported an incidence of 23%. The result might be due to several factors influencing the incidence of RFM and this includes; abortion, dystocia, multiple births, concurrent diseases, age, nutrition, season of the year and gestation length (1-7,9). Responses to different methods of treatments and Statistical analyses are shown in (Table 1). High response (100%) was obtained in cows suffering from R.F.M. treated with 15 mg prostaglandin PGF₂α I.M. This result was in agreement with that reported by other investigators (3,10). Most of the effects of PGF₂α on the regulation of physiological reproductive events or for treatments of reproductive disorders are based on its luteolytic action. This implies that for a full effect of PGF₂α, the animal must have a mature C.L. at the time of treatment. Another effect of PGF₂α which has practical importance is its stimulatory action on smooth muscles, especially the myometrium (9). Also PGF₂α may have a stimulatory effect on phagocytosis by uterine leucocytes which increase uterine defence mechanism against infection (3). The response to treatment with Lotagen showed 66.7% (4/6) and the treatment with uterine pessaries 50% (2/4) with no significant difference (P < 0.05) between methods. Similar observations had been made by several investigators (5,6,7). It was concluded from this study that prostaglandin PGF₂α is a perfect treatment for R.F.M. in cows.

* Medco-erp BV Holland

** Policresulenum, W. Germany

Table-1 . The responses of RFM to different methods of treatments

Method of treatment	No. of treated cows	No. of cows responded	percent
PGF2 α 15 mg I.M..	3	3	100 % a
Lotagen 100ml I.U. (Policresulenum)	6	4	66.7 % a
Uterine pessaries (oxytetracycline Hcl) 500mg I.U.	4	2	50 % a
Total	13	9	69.23%

a : No a significant difference (P< 0.05)

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