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 animals 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 PGF2α 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 PGF2α 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 PGF2α give a high success rate in the treatment of retained fetal membranes in cows.
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 complication includes; 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 cow 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 it 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 treatments and Statistical analyses are shown in (Table 1). High response (100%) was obtained in cows suffered 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 leuteolytic 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 have 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 a 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 it is a perfect to treats R.F.M. in cows.

* Medco-erp BV Holland
** Policresulenum, W. Germany
Table-1. The responses of RFM to different methods of treatments

<table>
<thead>
<tr>
<th>Method of treatment</th>
<th>No. of treated cows</th>
<th>No. of cows responded</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGF2α 15 mg I.M.</td>
<td>3</td>
<td>3</td>
<td>100 % a</td>
</tr>
<tr>
<td>Lotagen 100ml I.U.</td>
<td>6</td>
<td>4</td>
<td>66.7 % a</td>
</tr>
<tr>
<td>Uterine pessaries (oxytetracycline HCl) 500mg I.U.</td>
<td>4</td>
<td>2</td>
<td>50 % a</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>9</td>
<td>69.23%</td>
</tr>
</tbody>
</table>

a: No a significant difference (P< 0.05)

References