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RIGHT ABOMASAL DISPLACEMENT IN COWS CLINICAL STUDY AND TREATMENT IN BASRAH PROVINCE

R.Sh. Al-Hussaini* A.A.S.Al-Obadi** R.A. Omar ***
* ***Department of Surgery,Obtstatrics,College of Veterinary Medicine,University of Baghdad Baghdad,Iraq. University
**Department of Surgery , Department of Surgery,Obtstatrics,College of Veterinary Medicine,University of Basrah,Basrah,Iraq
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ABSTRACT

12 local breed cows, their age between 6-7 years old suffering from right abomasal displacement depending on their case history and general examination, treated surgically with two different surgical procedures (Right Flank Omentopexy and Right Flank abomasopexy).

INTRODUCTION

The abomasum is the fourth of " true" right froutquadrant of the abdomen, just inside the 7^{th} through 11^{th} ribs adjacent to the abomasum, on the left side of the abdomen, (1) or we can say abomasum lies in the midline on the ventral abdominal floor between the omassum and the rumen and reticulum cranially, Caudlly it maintains its ventral position but is located to the right of middline of it is normally fluctuant (2).

Displacement of the abomasum may occur to the left (LDA 9%), right (RDA 10%) or medially into the omental silly (rare). Left displacement of the abomasum causes a 90 degree torsion of the abomasum and little to no out flow obstruction of the abomuasum. LDA does result in decreased appetite and milk production possibly resulting from pain and stress. Left displacement rarely causes ischemia to the abomasum, but abomasal ulcers are not uncommonly associated with LDA.

Right displacement causes a similar clinical syndrome as LDA, but is potentially life - threating because the 90 degree right torsion may rotate about the mesenteric axis and become an abomasal volvulus causes an out flow obstruction of the abomasum and ischemia of the gastric arteries or vein become obstructed. Abdomasal out flow obstruction causes progressive for stomach dilatation (bloat, vagal syndrome) which is most sever if the omasum becomes torsed as a result of the volvulus of the abomasum, medial abomasal displacement is rare and causes identical clinical signs as LDA. In this type of displacement, the greater curvature of

the abomasum rotates medially and dosrally along the medial wall of the rumen (does not poss under rumen). This results in the abomasum displacing in the omentum dorsally so that it protrudes in to the supra omental recess (3).

Most cases of abomsal (DA) occur within the first month after calving and research and filed observation show prepartum nutrition and management of the transmission cow have a substantiate impact on the incidence of DAS most DA occur as result of several factors which combine to cause the displacement. Many of these factors reduce gastrointestial motility and smooth muscle function the typical occurrence rate in today's high producing herds is about percent (4).

Feeding of a pelletized complete mixed diet high in crude protein resulted in a 5 fold increase in the incidence of LDA in one dairy (5).

However (6) were not able to demonstrate a reduction in antrodudoenal motility when cows diets were a brupty changed from a forage (70% forage, 30% concentrate) for a concentrate (70% concentrate, 30% forage) base -one.

MATERIALS AND METHODS

This study were performed on 12 local cows, their age between 6-7 years old refereed to clinic with case history (table 1).

Table (1): Shows the clinical signs depending on the case history

Clinical signs from case history	No. of affected animals	Total no.
Distended abomasum palpated at last rib	7	12
* Scant dark colored faces	9	12
Burpt drop in milk yield	10	12
Increase water intaking	3	12

*** Two cases suffering from constipation and one case have normal faces**

By our clinical examination we found the symptoms (table 2).

Table (2): shows the clinical signs depending on the clinical examination

Clinical examination	Clinical symptoms	No. of affected animals	Total no.

Auscultation of the body wall in the area of the costchondral junction	Tinkling sound	8	12
Percussion	Tympanic resonance	4	12
Rectal examination	a-palpated the abomasum in the right flank	7	12
	b- discharge from valva (metritis)	6	12
Examination of temp	Elevated	1	12
Pulse	Normal	11	12
Resp.	Normal	11	12
	Only in the evaluated temperature case we found increase in pulse and Resp.		
Skin	Dehydration	6	12
Udder	Redness, hotness in 1 quarter	2	Californi 1 2
	2 quarter	4	

Treatment

Treatment requires replacing the abomasum in its normal position. Preferably, we also prevents recurrence by tacking the abomasum to the body wall.

Eight cases from the effect cows were treated by right flank abomasopexy(R.F. abomasopexy).

In this technique, the abdomen is entered in a standing animal through 20 cm long vertical incision in the right paralamber fossa after local anaesthesia with Xylcocain in dosage about 1 ml to 1 cm^3 using inverted L block (2).

Usually the abomasum lies under the incision, the attachment of the greater omentum a long the abomasum is located and a needle threaded with about two meters of heavy and a needle threaded with about two meters of heavy non absorbable suture material is passes in and out the omentum in the form of a matters sutures materials is passes in and out the omentum in the form of a mattress suture over a length of about seven centimeters. About a meter of the suture material should extend from each end of the suture line. The abomasum is decompressed using a 13 to 14 gauge needle attached to a rubber tube.

The abomasum is then carefully pushed to its normal position. The cranial end of the suture is attached to large cutting needle which is carried a long the internal body wall and forced through the ventral midline, 10 to 15 cm caudal to xiphoid. An assistant grasps the needle. A second cutting needle is then suture is placed in the simple continuos or interlocking fashion in the muscular of the greater curvature of the abomasum.

The suture ends are then brought though the ventral abdominal wall, the assistant then grasps the low suture ends, pulls them up and ties out side the body (13, 14).

Four cases from the 12 were treated by right omentopexy.

The abomasum is decompressed and vovulus if present, is corrected and the abomasum repositioned.

The fold of the omentum is grasped distal to the pylorus pulled out through the abdominal incision and held with the help of towel forceps or hand. Two mattresses to the incision are placed through the periotneum, transverse abdominal muscle and a fold of the omentum.

The periotneum and transverse abdominal muscle are then suttured in a simple continuos pattern in corroborating the omentum in the ventral two-third the incision.

The laprotomy incision is closed in used manner. The aim is to produced adhesion between the parietal and visceral peritoneum covering the greater momentum to hold the abomasum in a normal position.

Note: All cases are treated with systemic administration of fluid and electrolyte, sugar solution, and antibiotics after the surgery.

RESULTS AND DISCUSSION

The veterinarian diagnosis displacement of abomasum by compiling an accurate history of the animal, assessing clinical signs and listening with a stethoscope the abdominal sounds.

In general the risk factor induce problem underlying anorexia and abomasal atony resulting in the accumulation of gas and fluid in the abomasum with more room lead to displace with distention lead to palpated at last rib (7) thus agree with us which was dependent on diagnosis inside the age of affected cow range 6-7 years and this agree with (8) whose found that age, breed gender and season were risk of developing (DA) were 4 to 7 years old diary cows in January for (RDA) or march (LAD) but (9) evaluated the effected of season, parity and concurrent diseases on parturition while (10) and (11) reported to relative risk for

abomasal displacement with peripartum factors including twining retained placenta, metritis, in their 5th or higher lactation had the highest risk of (DA) and this agree with us.

All affected cases treated surgically and this agree with (1) whose said rolling recurs the problem within a few days but permanent correction is best achieved by surgical enteriy the abdomen, empty the gas, replacing the abomasum and suturing it down to the abdominal wall.

All treated cases are repair except one from omentopexy group reoccurred and this agree with (7) who found that some times omentum is edematous and therefore fail to hold sutures, this case was slaughter because the owner did not agree to performed the operation again.

The omental fixtion is not too for dorsal or caudal to the pylorus. There displacement may occur in the long term due to potential rotation of abomasum around the omental attachment. The right flank omentopexy was developed and should be the patient to be in dorsal recumbency, but right abomasopexy is indicated in the treatment of right sided displacement, and it is more easily appropriate in severely affected cows, less risk to patient. In standing position, suture material may pull through the abdominal wall and the right flank abomasopexy is perform due to above causative (14).

Complication of correction of abomasal displacement

Complication of surgical correction of abomasal displacement are infrequently reported. Abomasal and intestinal volvulus are the most serious complications of rolling technique (13) found that surgical infection occurred in 4% and accidental surgical trauma occurred in 0.5% of cows having right laprotomy for LDA. Reported complications of the closed suture technique include peritonitis celluitis, intestinal obstruction. Abomasal fistula formation is the most commonly reported complication of right paramedian abomasopexy.

انزياح المعدة الرابعة إلى جهة اليمين في الأبقار دراسة سريرية وعلاجية في محافظة البصرة

*رباب شاكر سلمان الحسيني **عبد الباري عباس ساهي ***رفل عبد الدائم عمر
****فرع الجراحة والتوليد ، كلية الطب البيطري ، جامعة بغداد ،بغداد ، العراق
**فرع الجراحة والتوليد ، كلية الطب البيطري ، جامعة البصرة ، البصرة، العراق

الخلاصة

أجريت الدراسة على (١٢) بقرة محلية تتراوح أعمارها بين ٦-٧ سنوات وردت إلى العيادة البيطرية في محافظة البصرة وهي تعاني من حالات انزياح المعدة الرابعة إلى جهة اليمين والتي خضعت للعملية الجراحية اعتماداً

على تاريخ الحالة والفحص السريري والكامل للحيوان إذ عولجت ٤ منها بطريقة Right Flank Omentopexy أما ٨ حالات الأخرى فقد عولجت بطريقة Right Flank abomasopexy.

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