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## GENERALIZED EMPHYSEMA IN A GOAT

(With 2 Fig)

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### الامفيزيما في أنثى ماعز

على السباعي

هذه الدراسة أجريت على أنثى ماعز عمرها ٤ سنوات كانت قد أدخلت المستشفى التعليمي بكلية الطب البيطري والثروة الحيوانية بجامعة الملك فيصل وهي في حالة تورم عام شمل سطح الجسم . وصاحب هذا التورم علامات ضيق تنفس مع خروج اللسان وتمدد الرأس والرقبة . أفاد الفحص الاكلينيكي ما يؤكد أن هذا التورم هو نتيجة تجمعات هوائية تحت الجلد شمله بذلك منطقة الرأس والرقبة والبطن والظهر والمناعم والضرع . لم يصاحب هذا التورم أى علامات تفيد العدوى أو تسمم ميكروبي والذي تأكد من فحص صورة الدم التي لم يحدث لها أى تغيير وكذلك النتائج السلبية للمسحات البكتيرية التي أخذت من تحت الجلد ومن تجمعات الهواء في الفشاء البلوري . أجريت الصفة التشريحية بعد نفوق الحيوان وتبين وجود تجمعات هوائية شملت كل أجزاء الجسم خاصة تحت الجلد - والفشاء البلوري وبعض الأحشاء الداخلية . لم يستدل من الفحص الاكلينيكي أو المعمل عن سبب هذه الحالة .

# GENERALIZED EMPHYSEMA IN A GOAT

## SUMMARY

This study was carried on 4 years old goat which showed marked swelling all over the body with severe respiratory dyspnoea. Palpation revealed crepitation sound while percussion indicated abnormal resonant sound. No reactions systemic was observed. Blood picture revealed insignificant abnormalities, bacteriological swabs indicated no growth. The necropsy findings were marked emphysema in the subcutaneous tissue all over the body, in the pleural sac, around the kidney and other internal organs.

## CASE HISTORY

A 4-year old female goat admitted to the Veterinary Teaching Hospital with marked subcutaneous swelling and marked respiratory dyspnoea.

## CLINICAL FINDINGS

Observed clinical findings were generalized subcutaneous swelling including the face, the eyes the neck, the chest, the back of the goat, the abdomen and the places udder and around the vulva (Fig. 1, 2). The animal stand with abducted elbows and hind limbs. Severe dyspnoea was also observed in the form of extended head and neck, mouth breathing with protrusion of the tongue. No systemic reaction was observed. Palpation revealed the presence of crepitation Sound Percussion was recognized by sound. Anticoagulated blood sample was collected for carrying out blood picture in addition to nasal and subcutaneous swabs which were taken for bacteriological examination. The animal was kept as inpatient overnight where died in the next day. Necropsy was carried out and revealed generalized emphysema in the subcutaneous tissue, and extended to the internal organs in which overdistention of the pleural sac and around the kidneys was found. Haematological examination revealed no significant alteration of blood picture under such condition. Bacteriological examination indicated no microbial growth.

## DISCUSSION and CONCLUSION

Subcutaneous emphysema was described as a result of some anaerobes infection or due to traumatic penetration of the skin



with foreign body or broken rib (KELLY, 1979). On the other hand emphysema of the internal organs may result from extension of pulmonary emphysema or internal penetrating wound (BLOOD *et al.*, 1989). In this case the emphysema was generalized and recognized subcutaneously, in the pleural sac and in the other internal organs. Careful examination of the case indicated no evidence of traumatic injuries of the skin. Furthermore systemic reactions were absent of which no significance alteration in the blood picture as well. These findings may exclude the possibility of bacterial infection as a cause of emphysema in such case. Moreover post-mortem examination indicated the presence of accumulated air in the subcutaneous tissue which extended to the internal organs namely in the pleural sac, and around the kidneys. This may throw some light on the possibility of communication site between the subcutaneous tissue and the internal organs. That however, there was no pathological evidence for speculation. In the available literature there was no reports on the existence of generalized emphysema in such form of the present case.

#### REFERENCES

- Blood, D.C.; Radostitis, O.M. and Hendreson J.A. (1989): Veterinary Medicine 6<sup>th</sup> Edition. Baillere Tindall.  
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Fig. 1: A goat showing the signs of generlized subcutaneous emphysema with marked swelling of the face, udder and evidence of respiratory dyspnia.



Fig. 2: Emphysema in the pleural sac, around the kidneys and other organs.