



## **SUBCUTANEOUS EMPHYSEMA IN A DESI CHICKEN - A CASE REPORT**

P.Sankar<sup>1</sup> and S. Peer Mohammed<sup>2</sup>

Veterinary University Training and Research Centre, Dindigul  
Tamil Nadu Veterinary and Animal Sciences University, India

<sup>1</sup>Corresponding Author, E.mail Id: sansurvet@gmail.com

### **ABSTRACT**

A rare case of subcutaneous emphysema of unknown etiology and its surgical management is reported with small nick incision over the skin and subcutaneous tissue in the dependant part of the body. Post surgical oral antibiotic along with B complex therapy resulted in uneventful recovery within 4 days.

**Key words:** Subcutaneous emphysema, Poultry, India

### **INTRODUCTION**

Accumulation of gas under the skin causes which is called as subcutaneous emphysema or windpuff<sup>1,4</sup>. Saif *et al.*, (2003) opinion that gas is usually air, which is penetrated the subcutaneous tissues through a skin wound or as the result of damage to part of the respiratory system. Also air is pumped into the surrounding tissues by the tongue and other muscular movements associated with swallowing, from a wound caused by sharp objects in the pharynx or the throat. The accumulated air then diffuses down the neck and produces a puffiness of the weight and pallor of skin.

### **CASE HISTORY AND CLINICAL FINDINGS**




A 7 week old desi chicken was presented with the history of swelling all over the body, off feed, gasping rales, staggering gait, abducted legs, pigeon like appearance, dull and depressed. Physical examination revealed generalized subcutaneous emphysema from head to cloaca (Fig.1), feather loss without visible skin injury (Fig.2). Based on the history and clinical findings this case was tentatively diagnosed as subcutaneous emphysema.

### **TREATMENT AND DISCUSSION**

After complete aseptic precaution two nick incisions were made in the dependant part of the body over the skin and subcutaneous tissue without damaging the underlying tissue. Subcutaneously accumulated gases were removed by squishing the gas towards the incisional sites. Post operatively owner was advised to apply povidone iodine ointment for surgical wounds and Cephalexin powder was administered through drinking water @ 30mg/kg body weight twice daily for 5 days along with oral B complex therapy. Desi chicken was recovered uneventfully without any complication within 4 days after treatment (Fig.3)<sup>3,2</sup>, Kamani *et al.* (2009), Sudhakara reddy *et al.* (2013). Accumulation of air in the subcutaneous tissues through cut wound in the skin or escaping air from disorder air sacs, lungs and trachea and also certain gas forming bacterias<sup>5</sup> and Miroslav and Nelly (1950). In the present case subcutaneous emphysema was noticed in the head, neck but respiration was abnormal before treatment

## SUBCUTANEOUS EMPHYSEMA IN A DESI CHICKEN - A CASE REPORT

and it was normal after treatment which indicates that there was no respiratory system involvement<sup>3</sup>. Saif *et al.* (2003) reported that air is pumped into the surrounding tissue by the tongue and other muscular movements associated with swallowing. This finding was correlated with the present case.

	
<p>Fig.1 Generalised Subcutaneous emphysema- Desi chicken</p>	<p>Fig.2 Feather loss and Ballooning</p>
	
<p>Fig.3 Recovery after treatment</p>	

### REFERENCES

1. James K.Morrissey, (2013).EX5&EX6.Respiratory diseases of birds, I&II *Western Veterinary Conference*.
2. Kamani J, Tijjani A, Yidawi J P, Gana A L, Egwu O K and Gusi A M (2009). Subcutaneous Emphysema (Windpuff) in a 13 Weeks Old Pullet: Case Report. *International Journal of Poultry Science*, Vol. 8, No. 11, pp. 1121-1122.
3. Miroslav Radan and Nelly Rautenstein-Arasi (1950). Anaerobic Subcutaneous Emphysema of Poultry. *Nature*, 166: 442.

## **SUBCUTANEOUS EMPHYSEMA IN A DESI CHICKEN - A CASE REPORT**

4. Riddle, C. (1997). Developmental, Metabolic and other noninfectious disorders. In B.W. Calnek, H.J. Barnes, C.W. Beard, L.R. McDougald and Y.M. Saif (Eds). Diseases of Poultry, 10<sup>th</sup> Edn. Iowa State University Press: Ames, IA., 913-950.
5. Saif, Y.M., A.M. Faldy, B.W. Calnek, C.W. Beard, D.E. Swayne, H.J. Barnes, L.R. McDougald and J.R. Glissin (2003). Diseases of poultry 11<sup>th</sup> Edn Iowa state press.