

# THORACOCENTESIS – A LIFE SAVING PROCEDURE IN A CAT WITH PYOTHORAX

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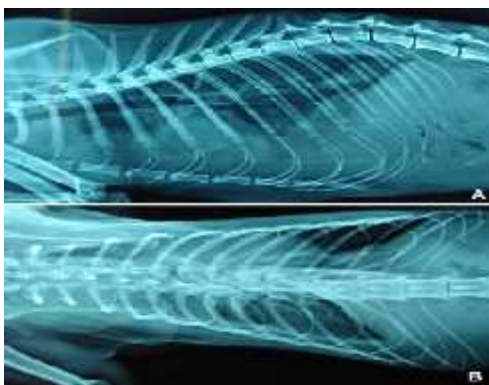
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A three years old cat was presented to the Veterinary College and Research Institute, Namakkal, Hospital with history of dyspnoea. Cat had respiratory distress, in sternal recumbency with open mouth breathing. Radiograph revealed fluid accumulation in the thoracic cavity. Ultrasonography of the thoracic cavity revealed pleural effusion. Emergency thoracocentesis was done and about 280 ml of purulent material was drained from the thoracic cavity. Cat was treated with oral amoxicillin – clavulanic acid twice daily for six days and the cat had uneventful recovery.

**Keywords:** Cat, Pyothorax, Thoracocentesis.

Pyothorax is one of the life threatening conditions in cats caused by accumulation of a septic inflammatory effusion within the pleural cavity. Pyothorax might be due to bacterial contamination of the pleural cavity or through thoracic wounds. Confirmation of the condition done by clinical signs, thoracic radiography and evaluation of the pleural effusions (Murphy and Papasouliotis, 2011). Etiological conditions for development of the pyothorax in cats are thoracic trauma, bacterial pneumonia, oesophageal perforation, migrating foreign bodies and haematogenous route (Epstein, 2014). Beatty and Barrs (2010); Stillion and Letendre (2015) reported lethargy, dyspnoea, hypersalivation and muffled heart sounds and extensive changes within the thoracic cavity in cat with pyothorax. Present communication describes the emergency non invasive medical management of a cat with pyothorax.

A three year old female domestic short hair cat was presented to the Veterinary College and Research Institute, Namakkal, Hospital with history of lethargy, inappetance, dyspnoea, abdominal respiration, weight loss over a period of ten days. It was treated for the same by the veterinarian in their locality without any clinical improvement. Clinical examination revealed pale mucous membrane, tachycardia, tachypnoea, salivation, paradoxical respiration and reduced intensity of lung sounds. Cat was with abducted elbows and open-mouth breathing. Lateral thoracic and dorsoventral radiograph of the thorax (without any sedation) revealed pleural effusion (Fig.1). Further pleural effusion was confirmed by the ultrasonography of the thorax. Haematological and serum biochemical analysis revealed leukopenia (5160/cumm), neutrophilia (4024/cumm) and lymphopenia (1032/cumm), hypoproteinaemi-a (4.24g/dL), hypoalbuminaemia (1.68g/dL).

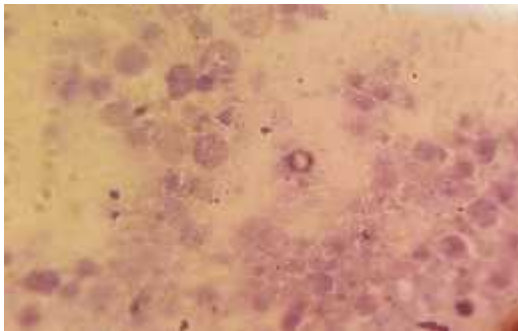


**Fig.1. Right lateral and dorsoventral thoracic radiographs of a cat with severe pyothorax**



**Fig.2. Thoracocentesis, purulent effusion (exudates) had been removed**

Emergency thoracocentesis was done with 21-gauge needle at the costochondral junction of seventh intercostal space on the right side of thorax. About 280 ml of purulent material was removed (Fig.2). Microscopic examination of the stained smears made from the pleural effusion revealed large number of necrotic debris with inflammatory cells and bacteria (Fig.3). Cat was administered with amoxicillin – clavulanic acid @ 20 mg/kg, IV and 5 % dextrose normal saline @ 10 ml



**Fig.3. Cytology of pleural effusion – Presence of inflammatory cells**

#### References

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- Epstein, S.E. (2014). Exudative pleural disease in small animals. *Vet. Clin. North Am. Small Anim. Pract.*, **44**: 161-180.

mg/kg IV twice daily for the six days and followed by daily oral administration of amoxicillin with clavulanic acid for three weeks. After completion of six days of therapy cat was active and free from salivation, dyspnoea. Thoracocentesis was done on 7<sup>th</sup> day revealed presence of the transudate and 30 ml of fluid was collected and it was free from bacteria and inflammatory cells (Fig.4).



**Fig.4. Improvement in the condition after one week of therapy**

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