Original Research Paper

Volume-8 | Issue-10 | October-2018 | PRINT ISSN No 2249-555X

General Surgery

ROLE OF ICD IN THE TREATMENT OF TUBERCULOSIS

Dr Sendhil Sengodan	Professor , Department of Surgery, IRT Perundurai Medical College Hospital
Dr R.Saravana Kumar*	Professor,Department of Pulmonology, IRT Perundurai Medical College Hospital *Corresponding Author
Dr Henry Prabakaran	Assistant Professor, Department of General Surgery, IRT Perundurai Medical College Hospital
N.Preethi	CRRI,Department of General Surgery, IRT Perundurai Medical college Hospital

ABSTRACT **BACKGROUND:** Use of thoracostomy for the evacuation of air , fluid from the pleural space has become so common these days . TB turns out to be the common cause of pleural pathology like pleural effusion,pneumothorax.we aim to bring out the importance of treating the complication of tuberculosis by thoracostomy by a retrospective study done in a rural medical college hospital IRT PMCH.

METHODS:A Retrospective study of 20 consecutive patients with pleural diseases were taken from a period of May 2017 to May 2018.

CONCLUSION:ICD is used in the acute emergencies of shortness of breath . It is most commonly done in conditions of massive pleural effusion due to tuberculosis,malignancy and trauma.it is really useful in life saving emergency.

KEYWORDS : PLEURAL DISEASES,THORACOSTOMY,TUBERCULOSIS.

INTRODUCTION:

Tuberculosis is the most common cause of respiratory disease in india. This remains to be the commonest cause of pleural effusion . It can cause pneumothorax and hydropneumothorax .All these leads to acute shortness of breath . Thoracostomy is done to relieve the patients symptom and serve the purpose of therapeutic procedure. It has improved the efficacy of treating the complications of tuberculosis . It costs less and nowadays it is being practised even in rural areas like our centre , which is situated in a rural set up and where there are a lot of cases of tuberculosis .

DISCUSSION:

PLEURAL EFFUSION:It is the collection of excessive fluid in the pleural space.It can be serous[hydrothorax],Blood[haemothorax], chyle[chylothrax],pus[pyothorax].The tuberculosis is responsible for the exudative pleural effusion.The exudate and transudate is usually differentiated by LIGHT'S CRITERIA ,based on the pleural fluid protein and LDH.Tuberculous pleural effusions are primarily due to a hypersensitivity reaction to the tuberculous protein in the pleural space

- The diagnosis can be established using
- Increased amount of small lymphocytes in pleural fluid.
- High levels TB markers [ADA > 40 IU/L, IFN > 140 pg/mL]

Malignancy is the common cause of Massive pleural effusion.Trauma can cause Massive haemothorax. These are the causes for which thoracostomy is being done commonly.

EMPYEMA: The pleural fluid gets infected by the bacteria leading to the formation of pus in the pleural space commonly due to pneumonia. Tuberculous empyema is usually the result of rupture of a cavity and spillage of large amount of organism into the pleural space. This process may create bronchopleural fistula with evidence of air in the pleural space.

A chest radiograph shows air fluid level.The pleural fluid is purulent and thick and contains large number of Lymphocytes.Acid fast smears and mycobacterial cultures are often positive.Surgical drainage is required adjunct to the drugs. Tuberculous empyema may result in severe pleural fibrosis and restrictive lung disease.

PNEUMOTHORAX: Pneumothorax is the collection of air in the pleural cavity.

- Pneumothorax can be
- Spontaneous

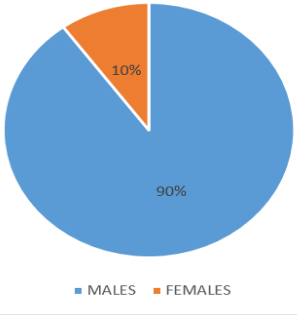
1. Primary
2. Secondary
- Traumatic

Pulmonary tuberculosis is the common cause of secondary spontaneous pneumothorax.This is due to rupture of blebs or cavity. Trauma can cause damage to the ribs leading to the penetration of lung tissue causing air entry into the pleural space . This is traumatic pneumothorax.

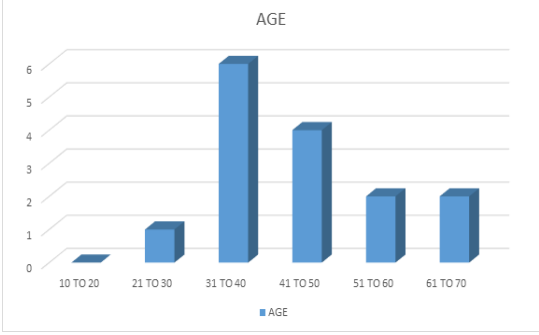
STUDY:

20 CONSECUTIVE PATIENTS WERE TAKEN UP FOR STUDY.

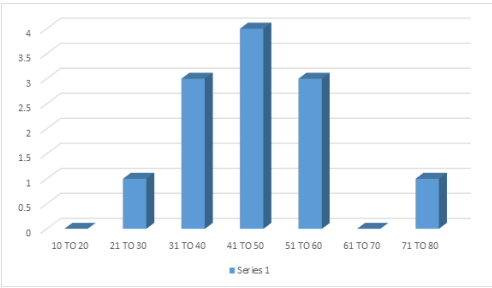
SEX DISTRIBUTION OF PLEURAL DISEASES



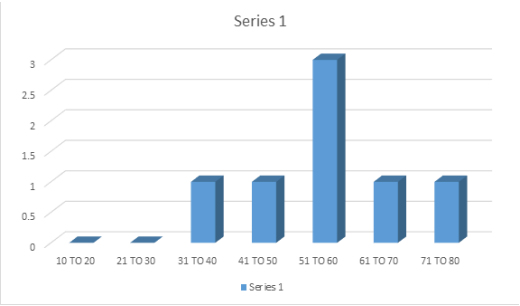
TOTAL AGE DISTRIBUTION



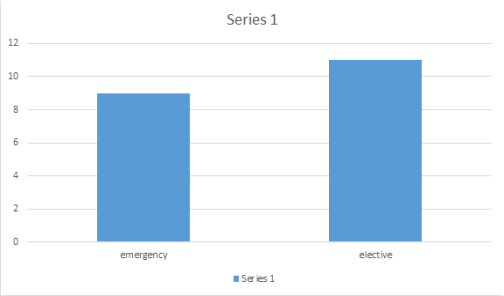
AGE WISE DISTRIBUTION IN PNEUMOTHORAX



AGE WISE DISTRIBUTION IN PLEURAL EFFUSION



EMERGENCY / ELECTIVE



There is equal preponderance to both the sides.

Operating time:

Minimum time – 15 mins
Maximum time – 35 mins
Average - 20.2 mins

ICD / THORACOSTOMY :

Drainage of fluid / air / blood / chyle from the pleural space.
Indications :

Pneumothorax
` Haemothorax
Empyema
Chylothorax

Position : Patient in supine position with shoulder hyper abducted.

Procedure :

Site of insertion : Lateral border of pectoralis major
Horizontal line inferior to axilla
Anterior border of lattismus dorsi
Horizontal line anterior to nipple

Procedure :

Local area preparation
Sterile drapings
Incision along the upper border of the rib
Trocar and cannula is used to develop the tract and then with finger
Finger inserted into the pleural space for exploration.
Large box chest tube (32 – 36 F) is passed along the tract into the pleural cavity
Tube is connected to underwater seal and secured with sutures .
Chest x- ray to be taken.

CONCLUSION:

Thoracostomy is the life saving procedure in the emergencies . It is being more Commonly used in the treatment shortness of breath.It is cost effective and less time Consuming procedure with less risk of anaesthetic complications. This procedure along with The drugs have a favourable prognosis for the patient . This also got a less procedure related Complications .

REFERENCES:

1. Rajan CS; C S in Surgery, a personal perspective http://www.ncbi.nlm.nih.gov/pubmed/26730007
2. Shlamovitz GZ; Tube thoracostomy. http://emedicine.medscape.com/article/80678-overview
3. Pranit Chotai; Tube thoracostomy management : http://emedicine.medscape .com/article/1503275-overview
4. Morne J . Voster ,Brian W.Allwood , […], and Coenraad F.N.Koengelenberg htttp://www.ncbi.nlm.nih.gov/pmc/articles/PMC4466424
5. Gil Z Shalmovitz, Tube thoracostomy,http://emedicine.medscape.com/article/80678-overview.
6. Eric Lim , Peter Goldstraw, Insertion of a chest tube to drain pneumothorax,http://www. anaesthesiajournal. co.uk/article/ S1472-0299(08)00231-2/abstract.
7. Doraid Jarrar, open pleural drainage,http://emedicine.medscape.com/article/1970035-overview
8. Hyde J, Sykes T , Graham T. Reducing morbidity from chest drains.BMJ 1997;314:914-5.
9. Diacon AH , Brutsche MH,Soler M. Accuracy of pleural puncture sites. Chest 2003;123:436 -41. Grogan DR ,Irwin RS, Channick R et al.Complications associated with thoracocentesis. A prospective , randomized study comparing three different methods.Arch Intern Med 1990;150:873-