



## Outcomes of Pediatric patients with constrictive pericarditis post pericardiectomy

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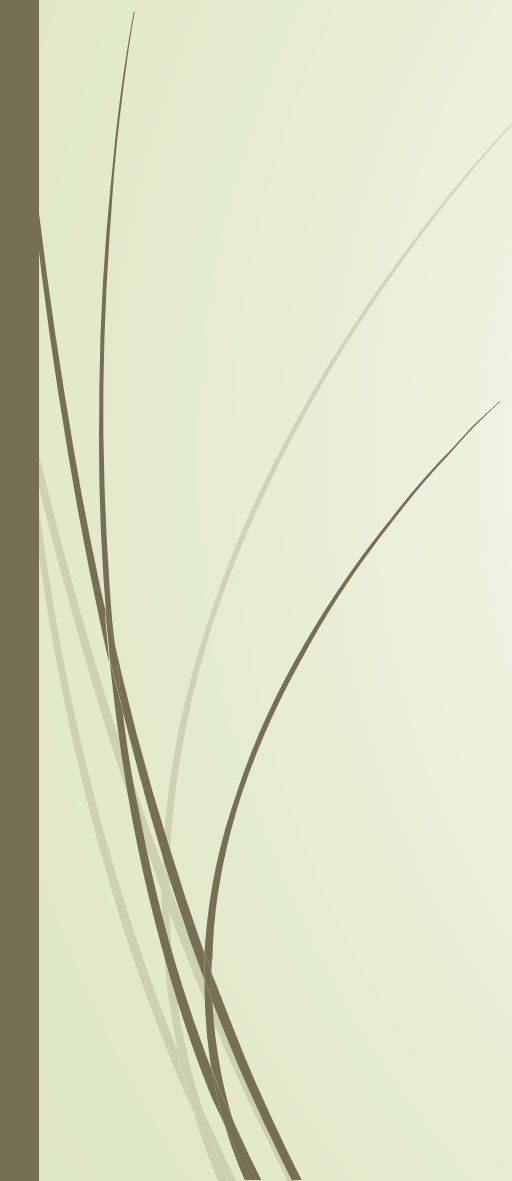
# Background

- **Constrictive pericarditis is a disabling disease characterised by impaired diastolic ventricular filling**
- **Caused by Thickening scarred fibrotic Pericardium**
- **TB pericarditis accounts for 50-70% of pericardial disease in Africa**

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- **Pericardiectomy is the definitive therapy for CP**
  - **CP associated with high early mortality /morbidity and low long-term survival**
  - **Preoperative prognostic factors and clinical outcomes after pericardiectomy remain to be elucidated**



# Methods

- ▶ **Retrospective chart analysis of pediatric patients undergoing pericardiectomy between January 2005 and December 2017**
  - ▶ **Diagnosis of CP based on clinical and echocardiographic findings , Calcification on chest x-ray and CT scan**
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# Patient characteristics

- 15 patients underwent pericardiectomy
- Ages 3- 16 mean (9.5)
- 4 Females
- 11 Males
- 5 patients were HIV positive (33%)
- 12 patients had PTB (80%)
- 2 Staphylococcus (13%)
- CMV infection (6.6%)
- 4 Pericardiocentesis were done on 1 pts prior to surgery
- 1 open drainage prior to pericardiectomy

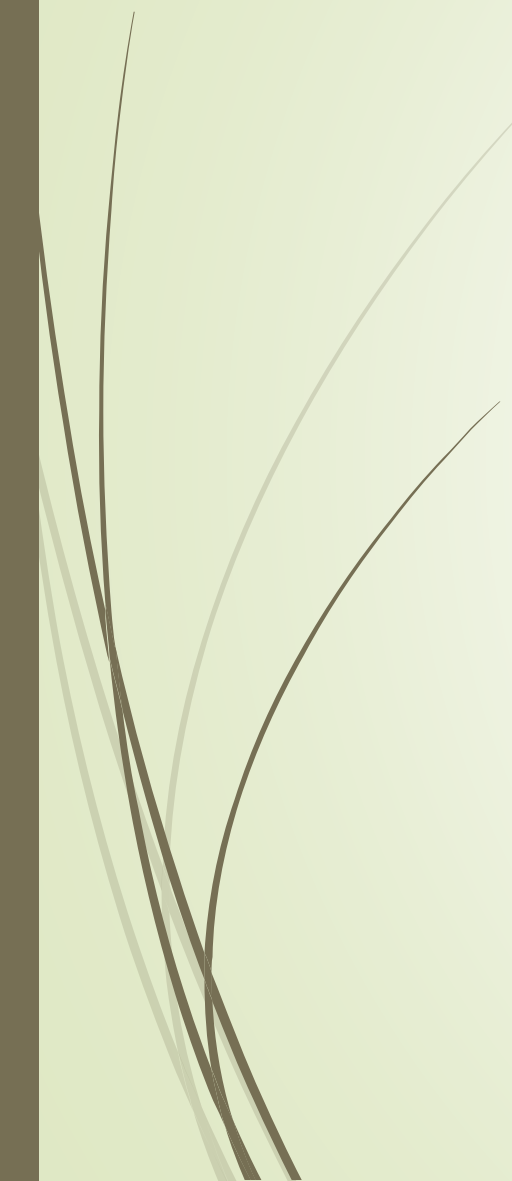


# Clinical presentation

- Dyspnea on exertion
- Chest pain
- Peripheral edema
- Raised JVP
- Ascites
- Pleural effusion 12
- Hepatomegaly
- NHYA 111 and 1V
- Duration of symptoms >6 months in 80% of patients



# Early post op complications

- **Pleural effusions**
  - **Low cardiac output syndrome**
  - **Transient hepatic dysfunction**
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# Outcome

- 2 patients died from low cardiac output syndrome  
13.3%
- Average icu stay 2-5 days
- All patients were inotropes ( dobutamine and adrenalin
- Average hospital stay post op (7-10 days )






# Outcomes

- Improvement in functional class 86.7%
- All patient were on low dose diuretics until 6 weeks
- 1 patient required ACEI on discharge for poor LV function
- 2 patients were lost to follow up after 6 months



# Discussion

- Pericardiectomy successful in 80-90%
- Evidence of abnormal diastolic filling patterns persists for months despite clinical improvement
- More than 60%- complete resolution
- Prognostic parameters- include myocardial atrophy or fibrosis
- Extensive pericardial calcification

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- **LCOS – in severely symptomatic**
  - **Stringent precautionary perioperative measures and experience surgeon to avoid imminent death**
  - **RV failure should be anticipated and adequate measures be in place to avoid mortality after pericardiectomy**



# References

- ▶ **Constrictive pericarditis : Etiology and cause specific survival after pericardiectomy :Stefan C Bertog et al , Journal of American College of cardiology vol 43 no8 2014**
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- ▶ **Prognostic predictors in pericardiectomy for chronic pericarditis: Se Hun Kang et al : Journal of cardiothoracic surgery Feb 2014**
- ▶ **Prednisolone and mycobacterium indicus pranii in Tuberculous pericarditis : BM Mayosi et al:New England Journal of medicine September 2014**
- ▶ **Prognostic implication of Pulmonary hypertension due to Constrictive Pericarditis : Mamotabo R Matshela et al: Journal of Cardiology and current research 2017**