BACKGROUND

- Surgery for infective endocarditis (IE) is indicated in certain clinical situations.
- Up to 50% of patients with native or prosthetic valve endocarditis undergo valve surgery during active phase of IE before completion of antibiotic therapy.
- When surgery for IE is done, it is recommended that the specimen should be sent for culture and histopathology.
- IDSA guidelines regard positive valve cultures or positive valve histopathology as definite IE.
- Surgical specimen results can guide the clinician in making decisions about the diagnosis and further management of patients with IE.

OBJECTIVES

- To evaluate whether surgical specimen of patients undergoing surgery for IE were sent for valve culture and histopathology.
- To delineate the timing of surgery, and its effect on surgical specimen culture results.
- To analyze the correlation between preoperative blood cultures, and valve cultures.
- To analyze whether valve cultures and histopathology influenced treatment.

METHODS

- A retrospective analysis in 680 bed tertiary care teaching hospital.
- IE patients were diagnosed by modified Duke’s criteria. All patients who underwent valve surgery were included in the study.
- Data was collected for:
  - Demographics
  - Echocardiogram findings
  - Blood culture
  - Surgical Indications
  - Valve cultures
  - Histopathology
  - Antibiotic management
  - Follow up at 6 months
  - Timing of surgery
  - Recurrence of IE

RESULTS

- A total of 323 patients with IE were identified.
  - 53 (16%) had valvular surgery.
  - Males 37 (70%).

- Trans esophageal echocardiogram (TEE) was available in 50 (94%).

- Blood cultures were sent in all 53 (100%) patients and were positive in 47 (89%).

- Valve cultures were sent in 41 (77%) and were (+) in 20 (49%) patients.
  - Of the patients who underwent surgery, 12/41 (23%) did not have their valve sent to histology.
  - Of those with + valve cultures, blood cultures correlated with valve cultures in 9/20 (45%).
  - In patients with a pre-operative diagnosis of possible IE (+) histology changed the diagnosis from possible to definite in 3/6 patients (50%).
  - Follow up at 6 months was available in 33 (63%) patients, 4 (12%) had a recurrence of IE.

CONCLUSIONS

- In our hospital, surgical specimen of patients with IE undergoing valve surgery were not routinely sent for valve culture or histopathology.
- Timing of the surgery did not significantly affect valve culture results.
- Histopathology and valve cultures should be a part of routine surgical protocol.