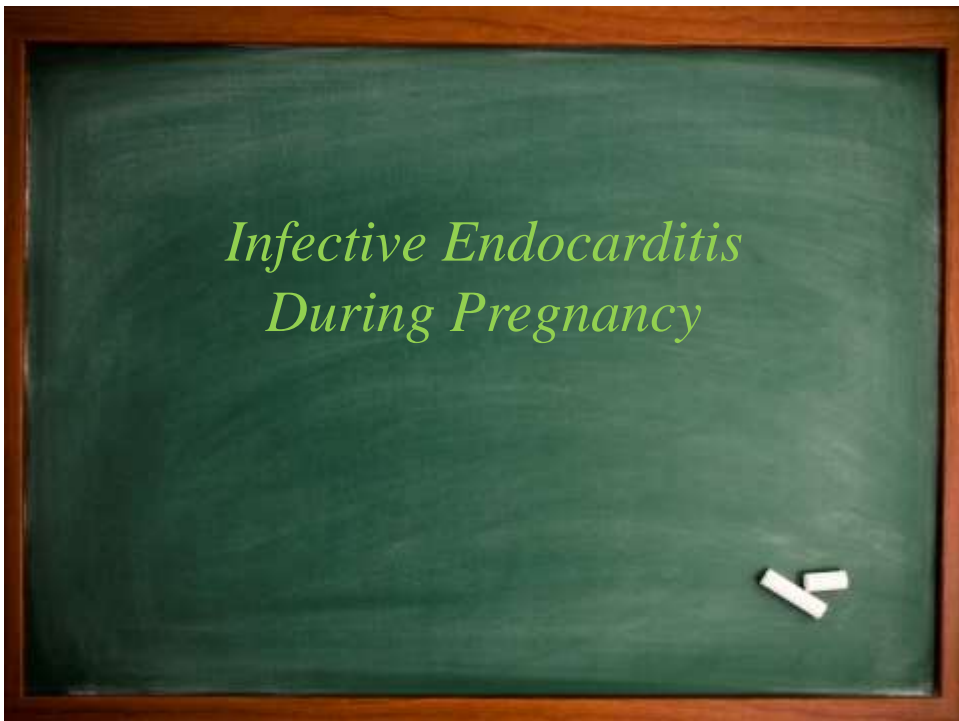


***Kasr Al-Ainy,
Cardiovascular Medicine
Department***

*Marwa Sayed Meshaal,
MD*



*Infective Endocarditis
During Pregnancy*



- IE during pregnancy is a very rare incidence, almost around 0.006% of pregnancies
- Current literature data consists of sporadic case reports
- Cardiac diseases are major challenge during pregnancy, IE make even much more worse
- Maternal mortality approaches 33% while fetal mortality is around 29%

Risk Factors and potential causative organisms

- Most affected patients are those with predisposed cardiac lesions then the IVDU
- Unfortunately, lately noticed is IV iron preparation as a major risk factor
- Increased incidence of UTI in pregnancy

- As other IE, *Streptococcus viridans* is the commonest causative organisms in published data
- However with increasing incidence of IV line as a source of during pregnancy, *S. aureus* is increasing
- In BCN cases empirical ttt should cover; *Enterococcus* sp., group B streptococci, Gm-ve Bacilli
- That would consist of dual beta lactam ring abx and an aminoglycoside

How to Manage?

- Pregnant ladies with IE need meticulous care, support and close observation to the mother and her fetus
- Team work including an obstetrician is mandatory
- Most deaths result from HF then emboli
- Despite high Fetal mortality , urgent surgery should performed without delay when indicated

Heart Failure

- The most *important indication* for urgent and emergency surgery
- Detecting HF during pregnancy is *very difficult* owing to the physiologic hemodynamic changes
- Increased HR, LL oedema and dyspnea are common during pregnancy yet they should not be accepted beyond appropriate levels
- Regular TTE assessment is a must to detect any subtle HF

Antibiotic Choice

- Patient should be treated the same way as non-pregnant patient
- Fetotoxicity should be taken in consideration however it should not jeopardize efficacy of ttt
- Penicillins, Erythromycin, Cephalosporins are FDA class B and could be given through 3 trimesters
- Vancomycin, Imipenem, Rifampicin, and Teicoplanin are C; risk can't be excluded and risk-benefit must be carefully considered

- Aminoglycosides, Quinolones, and Tetracyclines are FDA group D, which means definite fetal hazard during 3 trimesters
- They should be given only with definite indication
- In general role of aminoglycosides had much declined
- They are only indicated if:
 - Culture based with no alternative option
 - In PVE caused by OSSA, MRSA
 - BCN endocarditis

- For BCN cases a combination therapy is needed
- A total duration of 6 wk is needed since 1st day of response
- Treatment would consist of
 - Ampicillin sulbactam 3gm/6hr
 - Gentamicin (3-5 d for vative valve and 2 wk for PVE)
 - Ceftriaxone 2gm/12 hr
 - Vancomycin should be considered with history of IV lines or drugs

Surgical Intervention

- Surgery should be reserved for definitely indicated cases
- However when indicated, it should be carried out without unnecessary delay
- Whenever possible a viable baby should be delivered

Thank You