Case presentation:
A 67-year-old woman presented with 20 days of unexplained fever and fatigue. Examination revealed digital clubbing and a mid-diastolic murmur in the mitral area. 2-D echo showed vegetations on the posterior mitral leaflet. All three blood cultures grew Candida parapsilosis. Though surgery was indicated, prolonged treatment with intravenous Amphotericin B and fluconazole showed regression of the vegetations as followed on 2D echo. This is a rare case of Candida endocarditis in a patient without any risk factors. Recommended treatment for fungal endocarditis is combination of antifungal drugs and surgery but patient may respond to medical management alone.

Discussion:
Fungal endocarditis is accounts for only 1.3–6% of all cases of infectious endocarditis (rare entity) and it carries a high mortality risk [1]. Although C. albicans is the most common cause of fungal endocarditis, C. parapsilosis is the commonest non-albicans etiology for fungal endocarditis[2]. It is an extremely rare occurrence in patients with normal native cardiac valves. Galgiani and Girmenia reported one of the earliest occurrences and they found the cause to be a tear in the surgical wound by carrier surgeons[3]. But in our case there is no evident predisposing factor.

Candida species produce biofilm which is an important pathogenic mechanism. The biofilms produced by C. parapsilosis strains associated with invasive disease are morphologically different from those produced by C. albicans [4]. Therefore, C. parapsilosis induced endocarditis is difficult to treat completely. It is a slow-growing infection which has been reported to recur as late as 43 months after a positive blood culture[5]. Many cases were reported where there were recurrences and deaths even after completion of full course of antibiotics. Even the ideal treatment strategy for Candida endocarditis has not been formally tested in prospective randomized controlled studies. When we reviewed cases in the literature it has been documented that combined surgical and medical therapy is associated with a lower mortality rate[6].

The guidelines from The American College Of Cardiology (ACC) and the American Heart Association (AHA) mention surgery as a class 1 recommendation for treatment. Moreover, the recent Infectious Diseases Society of America (IDSA) guidelines on Candida endocarditis recommend that it should be treated by valve replacement, either for native or prosthetic valves [7]. In our patient, though valve replacement was recommended, it was deferred due to financial constraints. So, she was treated with fluconazole with which she showed clinical as well as echocardiographic improvement.

Conclusion:
Suspicion of candidemia is considered in presence of risk factor such as prosthetic heart valves or other valvular disease, intravenous drug use, indwelling central venous catheters. The above mentioned case is an unusual presentation of Candida endocarditis on native valves. Recommended treatment for fungal Endocarditis is combination of antifungal drugs and surgery but patient may respond to medical management alone.

Figure 1: 2-D ECHO ON PRESENTATION
Figure 2: 2-D ECHO ON FOLLOW UP

References: