

**Staphylococcus hominis Spinal Discitis with Infective
Endocarditis with
Embolic Splenic Infarcts**

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- 62/ M,
- DM,HT,IHD on Rx
- Lower Back ache 20 days
- Low grade fever 15 days
- Generalised weakness

- Temp : 100 F
- Pulse 100/min
- BP 100/70mmHg
- Lower back and paraspinal tenderness
- Left abdomen- tender splenomegaly
- Hepatomegaly
- Rest S/E : NAD

- Hb 11gm%
- TC 12600
- N82 L18
- PLC 210000
- ESR 50
- CRP 88
- Na 129
- K 3.9

- Creat :1.3
- SGPT 52
- Urine : Occ PC with proteinuria
- Blood CS 2 sets : sent

- MRI Spine : L3-4 Discitis with inflammed vertebra
- CT Abdo : Splenomegaly with Infarcts and Mesenteric LNP
- Echo : ? Vegetations on Mitral Valve
- TEE : Vegetation on AML

- CT guided biopsy : Staph Hominis
- Blood CS : both samples : staph hominis sensitive to Cloxacillin

Treatment

- IV Cloxacillin 2gm 4hourly for 6 weeks

Habitat of *Staphylococcus hominis*

- Humans are the primary host for both of the subspecies of *S. hominis* as these are mostly found as commensal organisms on the skin surface.
- While other coagulase-negative Staphylococci like *S. epidermidis* colonize the upper part of the body, *S. hominis* is mostly found on the lower part of the body like the perineal and groin areas.
- It is found in a large number in areas with numerous apocrine glands that retain some amount of moisture.
- *S. hominis* account for about 22% of all Staphylococci species found on the human skin.
- Besides, these are also found on the scalp of preadolescent children along with other species of Staphylococci like *S. capitis*.

- *S. hominis* is a CoNS that is a part of normal skin flora and rarely a cause of NVE, however, must still be considered in a patient presenting with fever, abdominal pain, and a new murmur Of all causes of NVE, CoNS accounts for 5% of cases .
- Of these cases of CoNS NVE, *S. epidermidis* is the most common causative pathogen.
- CoNS are emerging as a cause of NVE and have a rate of mortality similar to that of *S. aureus* infection, the most common cause of NVE .
- CoNS are normally considered less invasive as they are primarily skin commensal organisms not commonly causing serious infections
- *Staphylococcus lugdunensis*, unlike other CoNS, can readily cause more severe and invasive infections and should be regarded as a dangerous opportunistic pathogen

- The treatment of *Staphylococcus hominis* infections depends on the severity and location of the infection, as well as the susceptibility of the bacteria to antibiotics. In general, treatment may involve the use of antibiotics such as vancomycin, linezolid, daptomycin, or trimethoprim-sulfamethoxazole.
- The choice of antibiotics will depend on the susceptibility testing results and the patient's medical history, age, and underlying health conditions.
- It is important to note that *Staphylococcus hominis* infections are often associated with medical devices such as catheters and prosthetic devices. In these cases, the device may need to be removed or replaced in addition to antibiotic therapy.

- In patients with IE, prompt recognition of the causative pathogen is imperative. Pathogen-directed antibiotic treatment for IE should be started immediately as serious complications of systemic embolization, including, but not limited to, involvement of the central nervous system with ischemic stroke, intracranial hemorrhage, meningitis, and intracerebral abscess, may occur .
- Although our patient had already presented with evidence of embolic phenomena, the timely diagnosis was essential in preventing further hemodynamic compromise, structural disruption of the valve, and further embolization.
- These cases may be difficult to treat as there may be complications of congestive heart failure and rhythm conduction abnormalities, as in our patient.
- Even in cases with aggressive medical and surgical treatment, mortality remains at 25% in cases of CoNS endocarditis .

Summary

- Clinicians should have a high index for suspicion of CoNS endocarditis in a patient with serial positive blood cultures and embolic episodes though it is a rare cause of NVE.
- Antibiotic susceptibilities are required to guide prompt antibiotic therapy to decrease the risk of further complication in patients with extracardiac manifestations of IE.

Thank you