

## **ABSTRACT**

### **Erythema Induratum of Bazin in an eleven year-old boy: A case report**

#### **AUTHORS**

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#### **INTRODUCTION**

Tuberculosis (TB), a widespread disease in developing countries, has seen an increasing incidence among the pediatric population, which has caused a rise in the accompanying extra pulmonary manifestations of TB. Cutaneous TB, a type of extra pulmonary manifestation, presents a complicated clinical picture, and because of its non-pathognomonic findings, a clinic pathologic correlation is required. We present an 11-year-old boy, with Erythema Induratum of Bazin(EIB), who initially presented with multiple subcutaneous nodules with joint pains. The relation between EIB and TB is common in adulthood, and many authors advocate antiTB treatment even if the association to TB is not found. Our case-report sheds light on the advancements of EIB among the pediatric population and emphasizes that one should have a low threshold for identification, investigation, and treatment of tubercles in the pediatric age group.

#### **CASE REPORT**

An 11-year-old Indian boy, 2nd by birth order, born of non-consanguineous marriage, presented with multiple (three) subcutaneous nodules for 4 months, which were gradual in onset, progressive and migratory. The condition first appeared on the extensor aspect of his left elbow, later developing at the same location in the right elbow. The nodules on both sides were initially painless and subsided on their own with no scars/pigmentation; gradually progressed to pain and swelling in the affected region. The child did not have associated fever, rash, cough/cold, and abdominal symptoms. On investigation, raised ESR and nonreactive ASO, ANO titers were found. An interesting finding, though, was the absence of a BCG scar on the kid's arm. One day after admission, the child developed pain and swelling in his left knee. We sought expert opinion from a senior rheumatologist. Mantoux test was a positive result (18mm), and Chest X-ray revealed bilateral hilar lymphadenopathy. Lateral chest-X Ray showed pre tracheal lymph node involvement, and abdominal USG showed reactive abdominal lymphadenopathy. We identified the condition as a probable case of Bazin's nodules (post-TB Erythema Induratum). We performed CT thorax to confirm the case, which revealed multiple reactive axillary lymph nodes on the left, the largest being 17x13mm in size. Gastric lavage for Gene Expert was negative. Anti-TB Treatment (Category-1: INH-10 mg/kg, Rifampicin-15 mg/kg, Pyrazinamide-35 mg/kg, Ethambutol-20mg/kg) were started in view of the positive Mantoux test of 18mm. The nodule on the left elbow that had formed 15 days before the admission was resolved within 2 days of starting ATT. No fresh nodules appeared since the initiation of TB treatment, and the child completed 6 months of ATT treatment compliantly.

## CONCLUSION

In a pediatric population, non-specific symptoms like joint pain with subcutaneous nodules direct towards a myriad of possible diagnoses, all of which require a different treatment. EIB is one of those probable diseases. Despite a low incidence of latent TB infection, Asians and other developing countries have a higher TB rate. Thus, EIB as a cause should be considered in children presenting with nodular inflammation, especially from Asian and developing countries (1). Including a minimally invasive, rapid, easy-to-perform diagnostic test like the Mantoux test will help in ruling out TB beforehand. Interferon- $\gamma$  release assays might be useful to support diagnosis of EIB, especially in a setting of prior BCG exposure (2). Other tests like Chest X-ray, CT thorax, USG Abdomen, gastric lavage for bacteriological confirmation of Pulmonary or extra pulmonary Tuberculosis should be done. This will further provide a clearer approach towards other causes, especially in developing countries. This little step could help in the early diagnosis and better management of such diseases among kids. It will further prevent them from developing severe complications because of under diagnosis, the need for prolonged TB treatments and related side-effects.

## REFERENCES

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