NEUROIMAGING CHARACTERISTICS OF TUBEROUS SCLEROSIS COMPLEX IN PAEDIATRIC PATIENTS AT A TERTIARY HEALTH FACILITY IN KENYA

INTRODUCTION

Tuberous Sclerosis Complex (TSC) is diagnosed based on genetic and/or clinical diagnostic criteria with dermatologic manifestations being the commonest presentation in the clinical diagnostic criteria.

- Most prevalent and earliest skin finding
- Non-specific

Increasing availability of neuroimaging has facilitated diagnosis in neonates and infants

OBJECTIVES

To describe the radiological characteristics of children less than 18 years of age seen at Aga Khan University Hospital, Nairobi with a diagnosis of Tuberous sclerosis Complex

METHODS

- Retrospective observational study
- Aga Khan University Hospital diagnostic and radiology department
- 2011-2021





FIGURE 1. A. Axial Fluid Attenuation Inversion Recovery (FLAIR) and B. coronal FLAIR sequences demonstrating multiple temporal and occipital cortical tubers (blue arrows) and white matter radiation lines (white arrows)





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RESULTS



FIGURE 2. A. Axial FLAIR image demonstrating cortical tubers (blue arrows). B. Axial T1-weighted image demonstrating subependymal nodules (white arrows)

FIGURE 3. Top row- 4 months of age. A. Axial T1-weighted image showing a hypointense right parietal cortical tuber. B. Axial FLAIR image demonstrating hyperintense subependymal nodules (white arrows) including a large subependymal nodule (yellow arrow) which mildly enhances on the axial T1-weighted (white arrows).D and E. Coronal FLAIR post-contrast sequence, C.



FIGURE 4. A. Axial FLAIR sequence shows hyperintense cortical tubers (blue arrows). B, C. T1 and T2-weighted hypointense frontal subependymal nodules that are likely calcified sequences demonstrating hyperintense white matter radiation lines (yellow arrows).



CONCLUSION

In our setting, most patients have a delayed diagnosis of TSC and are managed for epilepsy, the commonest presentation, only to be referred when the epilepsy is drug refractory.

Neuroimaging plays an important role in the diagnosis of TSC

REFERENCES

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