

PAEDIATRIC NECK ULTRASOUND – AN OVERVIEW

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INTRODUCTION

Ultrasound is an indispensable tool to aid in the diagnoses of various neck pathologies in the pediatric age group. A complete scan of the neck includes the evaluation of the thyroid, salivary glands, vascular structures and lymph node analysis as well. In children and adolescents, the thymus is often visualized in the supraclavicular and jugular scans. It appears as a structure, usually hypoechoic, with thin hyperechoic straps, though echogenicity increases with age. The most common cause of cervical lymphadenopathy in the pediatric population is reactivity to known and unknown viral agents. The second most common cause includes bacterial infections ranging from aerobic to anaerobic to mycobacterial infections. The explosion in the use of ultrasonography as a non-radiating imaging modality in the pediatric population has changed the diagnostic algorithm for many clinicians.

OBJECTIVES

To assess the clinical effectiveness of neck ultrasound in the pediatric population in a tertiary care center

METHODS

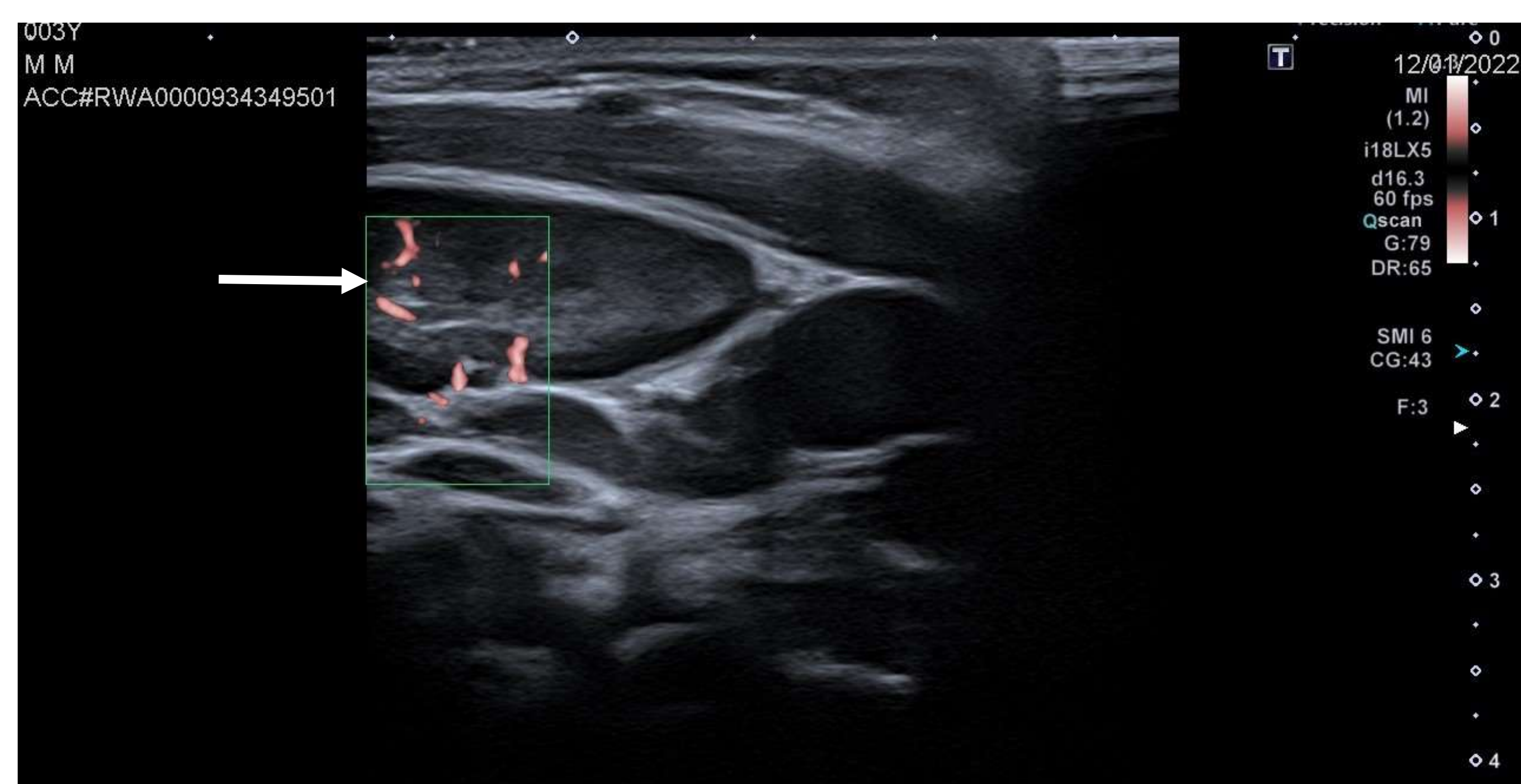
To assess 6 months of pediatric neck ultrasound requests and results with 100% compliance in aiding a radiological diagnosis. 107 cases between June 22 – Dec 22.

RADIOGRAPHIC PRESENTATION

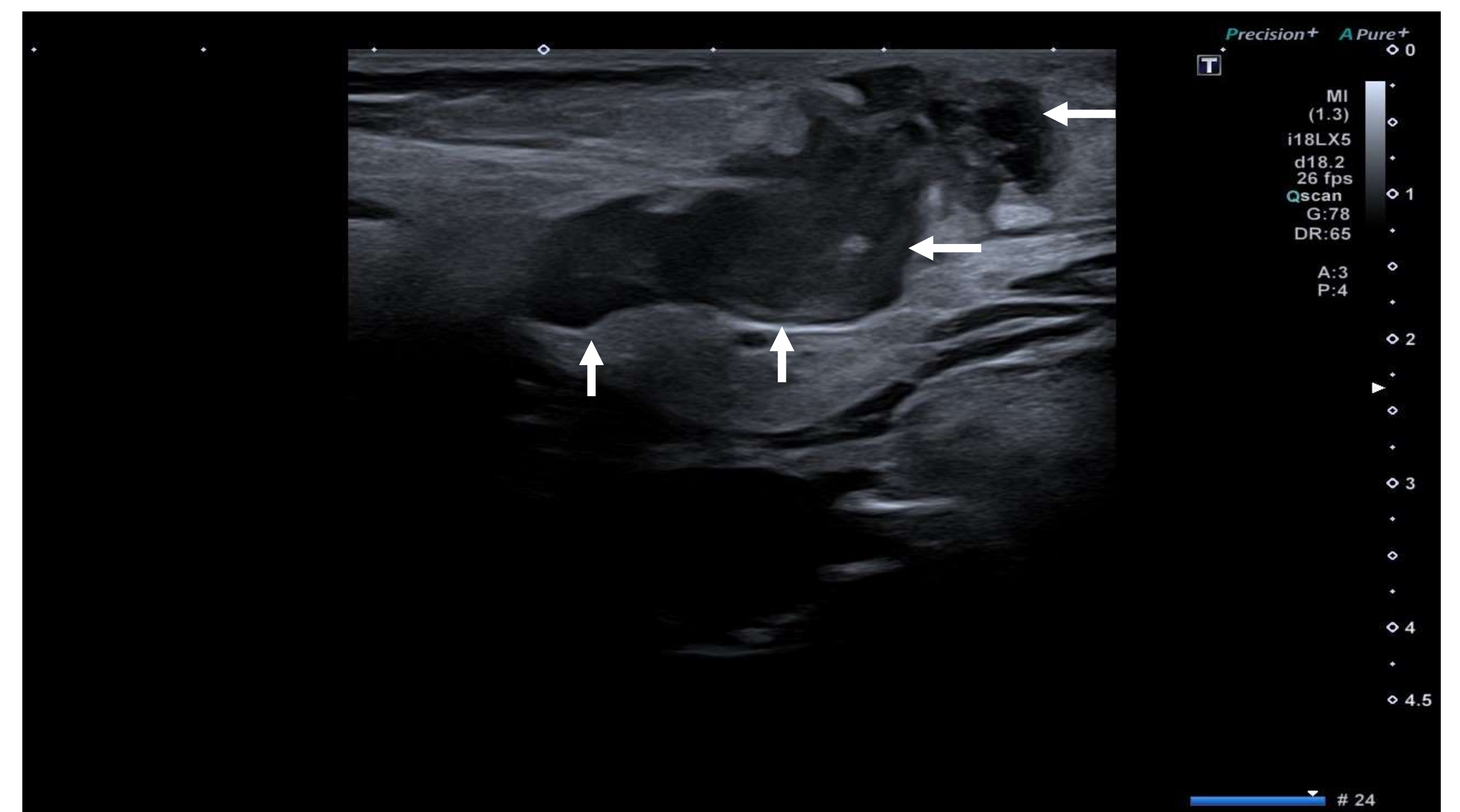
USS of Normal Lymph Node



USS of Reactive Lymph Nodes with increased vascularity.

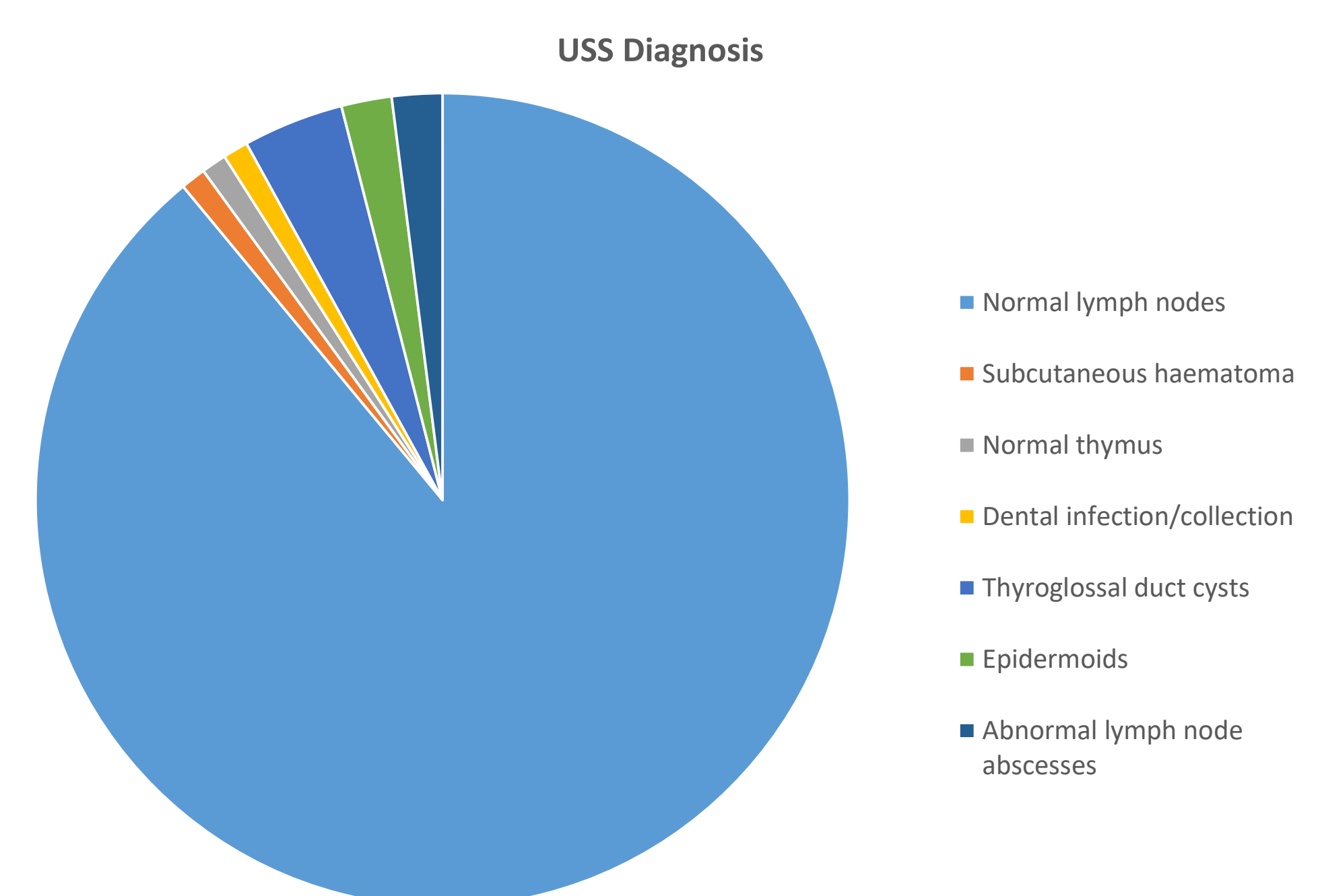
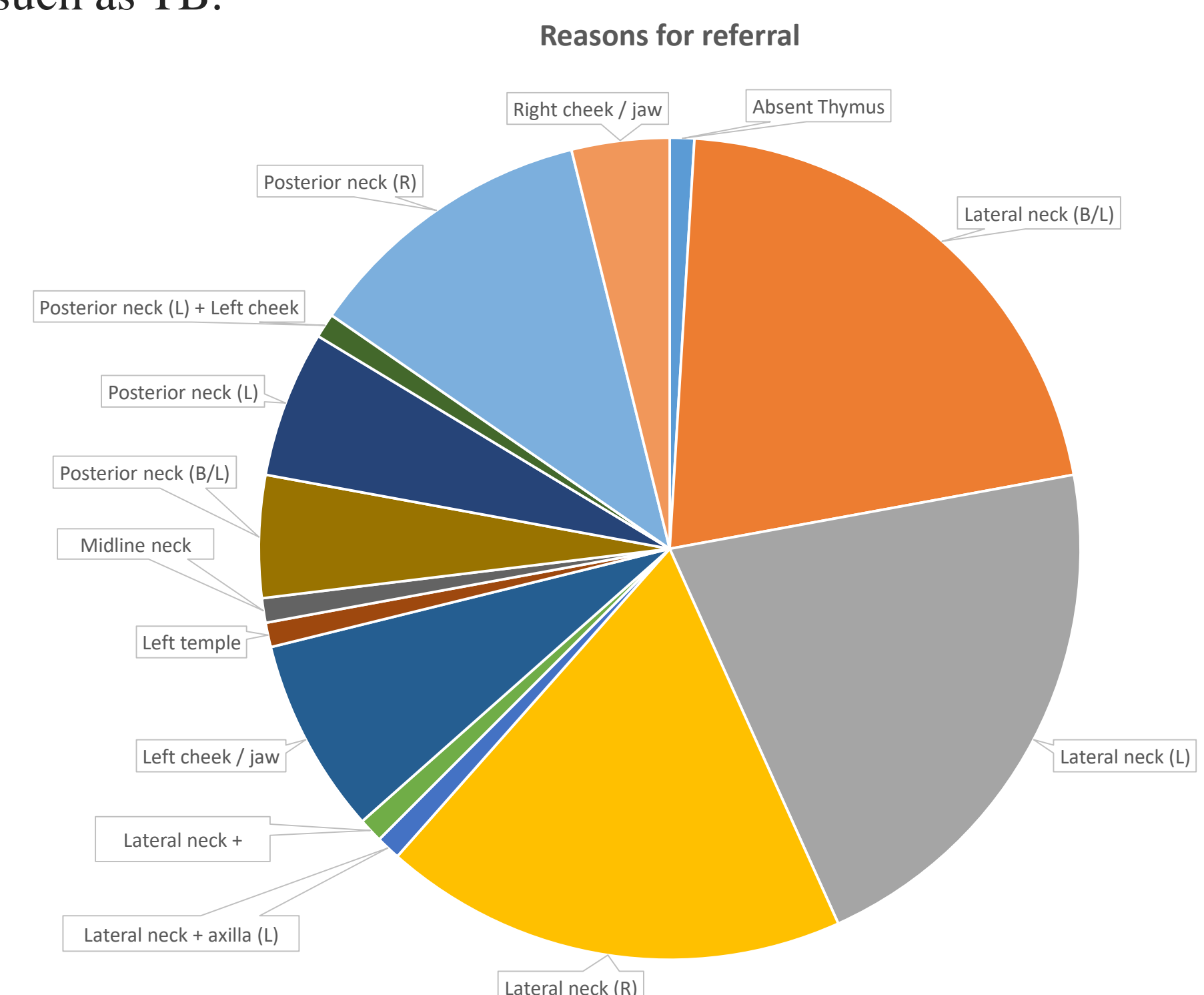


USS scan of a pathological lymph node with abscess formation and extension outside the lymph node capsule



RESULTS

Of the cohort analyzed 65% were male, 35% female. The average age was 6 years and 7 months, with the range of ages between 10 months to 16 years. Reasons for referral included antenatal absent thymus, recurrent discharge, and incidental neck lumps noticed by parents. 89% of cases had normal lymph nodes, 1% subcutaneous hematoma, 1% normal thymus, 1% dental infection/collection, 4% thyroglossal duct cysts, 2% epidermoid and 2% abnormal lymph node abscesses. The abnormal lymph node abscesses had the appearance of a hypoattenuating area arising from and extending out of the lymph node. These were investigated for atypical mycobacterium such as TB.



CONCLUSIONS

Prompt USS evaluation as an adjunct to the clinical picture helped aid diagnosis and triage management. Neck USS remains an important mainstay in the analysis and evaluation of neck pathology in the pediatric population.

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