

## Intelligent Technology to Screen for Pediatric Lymphadenopathy in Medical Laboratories

Wael Alturaiki, Ph.D\* Hrbi F, BSc\*\* Awed, BSc\*\* Enezy S, BSc\*\* Nahed Alharthi, Ph.D\*\* Abdulkarim S. BinShaya, Ph.D\*\* Abdulaziz Alfahed, Ph.D\*\* Talat Bukhari, Ph.D\*\*\* Amna Alotiby, Ph.D\*\*\* Aisha Alanazi, MD\*\*\*\* Noufa Alonazi, MD\*\*\*\* Rawiah Alsiary, Ph.D\*\*\*\* Abeer Alsofyani, Ph.D\*\*\*\*\* Hajir Alsaihati, Ph.D\*\*\*\*\* Mashael Altoub, Ph.D\*\*\*\*\* Awal Zaki, MD\*\*\*\*\* Arwa F. Alanazi, BDS\*\*\*\*\* Amani F. Alanazi, BRT\*\*\*\*\* Asma Alanazi, Ph.D\*\*\*\*\* Faris Q.B. Alenzi, Ph.D\*\*

### ABSTRACT

**Objective:** Fine Needle Aspiration Cytology (FNAC) is considered as a well-established method in adult oncology, and it is also highly recommended for the diagnosis of childhood tumors. This study aims to investigate the common causes of lymphadenopathy in pediatric population particularly in Saudi children by using FNAC technique.

**Methodology:** The study samples were collected randomly from 100 pediatric patients of 1 to 15 years of age who visit different pediatric clinic centers of Riyadh, KSA. The samples were obtained by professional pathologists and pediatric surgeons in accordance with the standard procedure.

**Results:** Cytological diagnosis revealed 11 cases of reactive lymphadenopathy, 3 cases of granulomatous lymphadenitis, and 16 cases of malignancy out of which 10 patients had non-Hodgkin's (NHD) and 6 patients had Hodgkin's lymphomas (HD)

**Conclusion:** This study confirmed that the FNAC is a useful diagnostic tool and can be used during the investigation of peripheral lymphadenopathy in pediatric patients.

**Keywords:** Lymphadenopathy, Tumors, Infection, Malignancy, Surgery, Saudi Arabia

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\* Department of Medical Laboratory Sciences  
College of Applied Medical Sciences

\*\* Department of Medical Laboratory Sciences  
College of Applied Medical Sciences  
Prince Sattam University, Saudi Arabia  
E-mail: f.alenzi@psau.edu.sa

\*\*\* Department of Immunology  
Um Qura University

\*\*\*\* Military Hospital

\*\*\*\*\* KAIMRC center

\*\*\*\*\* Department of Medical Laboratory Sciences  
College of Applied Medical Sciences  
Hafr Albatan University

\*\*\*\*\* Department of Medical Laboratory Sciences  
College of Applied Medical Sciences, KSU

\*\*\*\*\* Dammam Regional Lab

\*\*\*\*\* Department of Dentistry  
Riyadh Alm University

\*\*\*\*\* Department of RT, Al-Marafa University

\*\*\*\*\* College of Medicine, KSAUHS, Riyadh, Saudi Arabia.