2101. Co-detection of Group A Streptococcus and Viruses in Children with Pharyngitis
Lauri Ivaska, MD, PhD1;2, Kirsu Grondahl-Yh-Hannukela, PhD;3 Jussi Niemelä, MD, PhD1; Matti Waris, PhD1;4 Tytti Vuorinen, MD, PhD1;5 Nina Putkuri, PhD1;5 Kaisa Ranta-Aloko-Jalava, MD, PhD;5; Jaana Vuopio, MD, PhD2 and Ville Pelosola, MD, PhD1;5 Turku University Hospital, Turku, Finland, University of Turku, Turku, Finland

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Background. Co-detection of group A streptococcus (GAS) and viruses in children with pharyngitis has not been well documented. We aimed to study the occurrence of co-detection in relation to GAS diagnostic method and GAS emm types.

Methods. This was part of a prospective study done in an emergency department (ED) in febrile children 1–16 years of age with pharyngitis. Throat swabs and blood samples were collected and testing for GAS was performed by 2 different rapid antigen detection tests (RADT; StrepTop and mariPOC) in the ED and by throat culture in laboratory. In addition, frozen throat swabs were tested for GAS by two different nucleic acid amplification tests (NAAT; Focus 3M and Illumigene). Emm types of GAS strains was performed from frozen isolates. Virus diagnostics was performed by NAAT and serology, and interferon response to virus infection was estimated by myxovirus resistance protein A (MxA) blood concentration.

Results. In total, 83 children (median age 5.5 years; interquartile range 3.2–12.2) were recruited in the study. Specimens from 78 and 48 patients were available for RADT and NAAT, respectively, and 13/19 of GAS isolates for emm typing. In comparison with throat culture results, sensitivities and specificities of GAS diagnostic tests were 72% and 98% for StrepTop, 100% for mariPOC, 91% and 97% for Focus 3M and 91% and 96% for Illumigene, respectively. In GAS positive patients, virus detection and elevated blood MxA level (≥175 μg/L) were more frequent when GAS diagnosis was based on mariPOC (54.5%) than when it was based on StrepTop (38.5%) test results. Emm type C GAS emm type 89 was detected in 7 patients of whom 6 had also a positive result in virus detection (P = 0.053).

Conclusion. In comparison with throat culture, diagnostic performance of different GAS tests varies greatly. In children with febrile pharyngitis, enhanced sensitivity of the GAS PCR test was associated with increased co-detection of viruses and interferon responses questioning the significance of GAS detection as a true causative agent in these patients. Detection of GAS emm type 89 was associated with GAS-virus co-detection.

Disclosures. All authors: No reported disclosures.

2102. Elevated Neutrophil-to-Lymphocyte Ratio is an Effective Prognosis Indicator In Extra-Pulmonary Tuberculosis
Houda Ben Ayed, MD1; Makram Koubaa, MD2;3; Fatma Smouai, MD2;3; Yosra Mejdbou, MD1; Tarak Ben Jemaa, MD1;4; Imed Maaloul, MD1;2; Sourour Yaich, MD1; Monther Abed, Director1; Jamal Dammak, MD1; Chokri Marrachi, MD1;3 and Mourin Ben Jemaa, MD1;2 Department of Epidemiology, Hedi Chaker University Hospital, Sfax, Tunisia, Department of Infectious Diseases, Hedi Chaker University Hospital, Sfax, Tunisia, Tuberculosis Research Unit, Hedi Chaker University Hospital, Sfax, Tunisia

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Background. Extra-pulmonary tuberculosis (EPT) may lead to serious outcomes in tuberculosis (TB) patients. Factors related to poor prognosis (PP) are still insufficiently understood. The peripheral blood neutrophil to lymphocyte ratio (NLR) has been reported to correlate with the prognosis of many acute or chronic infectious diseases. In this perspective, we aimed to investigate the prognostic relevance of NLR in EPT patients.

Methods. Data were collected from EPT patients, diagnosed between 1990 and 2016. We defined a PP by the occurrence of clinical complications during the hospital stay or the follow-up. We evaluated the performance of NLR in identifying PP. The Kaplan-Meier method was used to generate complication-free survival curves which were compared by Log rank test according to NLR categories. Cox proportional hazard regression analysis was used to reveal the independent prognostic factors.

Results. We included 265 patients with EPT among them 68 cases (25.7%) had a PP. The mean age was 42 ± 19.2 years. Sex ratio was 0.8. EPT in association with other prognostic indicators in order to identify high-risk patients.

Conclusion. In this study, a useful prognostic factor to predict complications in patients in EPT and may be applied in clinical management of EPT in association with other prognostic indicators in order to identify high-risk patients.

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