البحث السابع : بحث **مشترك** غير مشتق من رسالة ولم يسبق تقييمه **منشور دولى**

عنوان البحث باللغة الانجليزي : The Ifng antisense RNA 1 (IFNG-AS1) and growth arrest-specific transcript 5 (GAS5) are novel diagnostic and prognostic markers involved in childhood ITP

عنوان البحث باللغة العربية: الحمض النووي الريبوسى 1 (IFNG-AS1) المضاد للتحسس والنسخة 5 الخاصة بتوقف النمو (GAS5) هي علامات تشخيصية وإنذارية جديدة فى نقص الصفيحات المناعي في مرحلة الطفولة

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Background/aim: IFNG-AS1 is a long noncoding RNA that works as an enhancer for the Interferon-gamma (IFN-γ) transcript. GAS5 (growth arrest-specific 5) is a lncRNA that is associated with glucocorticoid resistance. Aberrant expressions of IFNG-AS1 and GAS5 are directly linked to numerous autoimmune disorders but their levels in childhood ITP are still obscure. **This study aims** to elucidate expressions of target lncRNAs in childhood ITP and their association with pathophysiology and clinical features of the disease as well as their association with types and treatment responses. **Method:** The fold changes of target lncRNAs in blood samples from children with ITP and healthy controls were analyzed using quantitative real-time PCR (qRT-PCR). **Results:** There were overexpressed lncRNAs IFNG-AS1 and GAS5 in serum of childhood ITP patients [(median (IQR) = 3.08 (0.2–22.39) and 4.19 (0.9–16.91) respectively, Also, significant higher IFNG-AS1 and GAS5 ($p < 0.05$) were present in persistent ITP (3–12 months) [median (IQR) = 4.58 (0.31–22.39) and 3.77 (0.87–12.36) respectively] or chronic ITP (>12 months) [median (IQR) = 5.6 (0.25–12.59) and 5.61 (1.15–16.91) respectively] when compared to newly diagnosed <3 months patients [IFNG-AS1 median (IQR) = 1.21 (0.2–8.95), and GAS5 median (IQR) = 1.07 (0.09–3.55)]. Also, significant higher lncRNAs IFNG-AS1 and GAS5 were present in patients with partial response to treatment [IFNG-AS1 median (IQR) = 4.15 (0.94–19.25), and GAS5 (median (IQR) = 4.25 (0.81–16.91)] or non-response [IFNG-AS1 median (IQR) = 4.19 (1.25–22.39) and GAS5 median (IQR) = 5.11 (2.34–15.27)] when compared to patients who completely responded to treatment (IFNG-AS1 median (IQR) = 2.09 (0.2–14.58) and GAS5 (median (IQR) = 2.51 (0.09–10.33). In addition, following therapy, the expressions of IFNG-AS1 and GAS5 are significantly negatively correlated with platelet count. **Conclusion:** Findings suggest that lncRNAs IFNG-AS1 and GAS5 are novel diagnostic and prognostic genetic markers for childhood ITP that can aid in a precise prediction of the disease's progress at the time of diagnosis and could be a useful tool for treatment planning.