

ORIGINAL ARTICLE

Platelet Hemogram Limits by Way of an Indicator of Respiratory Asthma Harshness

¹Agzamkhodjaeva Nasiba Saidovna, ²Abdullaeva Diloram Telmanovna, ³Satiboldieva Nasiba Rajabovna, ⁴Hudaykulov Erkin Abdurazakovich

¹⁻³Department of "Children's Diseases", Tashkent Medical Academy, Tashkent, Uzbekistan

⁴Department of Pediatrics, Tashkent Medical Academy, Tashkent, Uzbekistan

Email: nasibaagzamkhadjayeva@gmail.com

¹<https://orcid.org/0009-0007-5757-0919>

²<https://orcid.org/0000-0002-7917-2950>

³<https://orcid.org/0000-0001-5968-445X>

⁴<https://orcid.org/0000-0002-0056-5170>

ABSTRACT

Respiratory asthma (BA) remains a long-lasting provocative illness by universal appearances counting hematologic vicissitudes. This education examines platelet heights cutting-edge 27 broods by ADVERTISEMENT alienated hooked on stage collections (5-11 ages then 12-18 ages) then assessed rendering toward the harshness of the illness. The consequences designate a straight association amid asthma harshness then platelet heights. Cutting-edge the sporadic procedure, platelet heights continue inside the usual variety ($150-320 \times 10^9/L$). Though, cutting-edge tenacious asthma, particularly reasonable then plain asthma, the platelet total upsurges meaningfully (awake toward $971 \times 10^9/L$), through the uppermost standards experiential cutting-edge teenage lassies. This tendency designates a marked universal provocative reply then a possible danger of hypercoagulability cutting-edge plain ADVERTISEMENT. The recognized platelet irregularities might donate toward endothelial dysfunction then augmented circulatory danger cutting-edge broods by asthma. The answers underline the essential aimed at even hemostasis nursing cutting-edge broods by tenacious asthma, particularly throughout eras of exacerbations, toward stop thrombotic problems then enhance action plans. Upcoming educations must emphasis happening likely healing interferences meant on modifying coagulation procedures cutting-edge broods by asthma.

Keywords: respiratory asthma, platelets, universal irritation, hypercoagulability, broods, harshness, endothelial dysfunction, circulatory danger, hemostasis, gore clotting.

Received 10.02.2025

Revised 01.03.2025

Accepted 16.05.2025

How to cite this article:

Agzamkhodjaeva Nasiba S, Abdullaeva D T, Satiboldieva N.R., Hudaykulov E A. Platelet Hemogram Limits by Way of an Indicator of Respiratory Asthma Harshness. Adv. Biores., Vol 16 (3) May 2025: 84-88.

INTRODUCTION

The part of protection then cytokines. Once procedures of sensitive illnesses such by way of respiratory asthma, atopic dermatitis then eosinophilic esophagitis remain recognized, the form remains cutting-edge a national of long-lasting irritation. Throughout the sensitive routine, ace-provocative cytokines (IL-4, IL-5, IL-9, IL-13) remain vigorously manufactured, causal toward the upkeep of the provocative procedure then augmented platelet manufacture. IL-6 theaters an important part cutting-edge the inspiration of megakaryopoiesis cutting-edge the jawbone core [1,2,9].

Message by eosinophils then basophils Eosinophils then basophils remain vigorously complicated cutting-edge the growth of hereditary lockups such by way of histamine, serotonin then through myoxine. These peacekeepers might assistance toward trigger platelets [2,6]. Cutting-edge adding, the communication of platelets by eosinophils procedures platelet-eosinophil developments that improve the provocative reply [1,2,6].

Hypoxia then platelet start Cutting-edge long-established procedures of respiratory asthma then anaphylactic responses Global hypoxia that endorses the announcement of hypoxia inducible issue-1 α

(HIF-1 α). This device rouses megakaryocytes, cumulative platelet heights. Lengthy hypoxia, experiential, cutting-edge spare rank, container principal toward noticeable then persistent thrombocytosis [3].

Drug treatment. Unwilling-provocative treatment counting glucocorticosteroids (GCS) container endorse thrombocytopoiesis through inspiring the jawbone core. Antihistamines, which chunk the belongings of histamine, remain too talented toward circuitously control platelet manufacture finished belongings through a provocative device [8].

Platelet's production an important part not lone cutting-edge hemostasis nonetheless too cutting-edge resistant replies, particularly cutting-edge forward sensitive illnesses. Their start then communication by extra lockups of the resistant scheme might affect the pathogenesis then scientific sequence of these illnesses [1,2].

Platelet start cutting-edge sensitive responses. Cutting-edge sensitive illnesses such by way of respiratory asthma, pole lockup start happens by the announcement of booklet peacekeepers counting platelet triggering issue (OVERWEIGHT). OVERWEIGHT remains manufactured cutting-edge pole lockups, neutrophils, monocytes, macrophages, eosinophils then platelets then remain a strong stimulator of platelet combination. Breath of OVERWEIGHT persuades noticeable bronchospasm then eosinophil penetration, foremost toward important procedures that provision his important part cutting-edge the pathogenesis of the appearances of instant-kind belongings. [2,9].

Communication of platelets by additional lockups of the resistant scheme. Platelets remain talented toward interrelate by leukocytes, numerous immunoregulatory cytokines then hemokines, subsequent cutting-edge an provocative reply. Cutting-edge sensitive illnesses, this communication container principal toward augmented irritation cutting-edge the forward area, causal toward the growth then upkeep of the pathologic procedure [1,2,9].

Part of platelets cutting-edge lung flesh wound. Platelet start might remain a main pathophysiologic device of flesh injury cutting-edge numerous pulmonic illnesses. Cutting-edge sensitive circumstances such by way of respiratory asthma, platelets container reason lung flesh injury finished the announcement of peacekeepers then communication by additional lockups of the resistant scheme [4,5,7].

Cutting-edge patients by pulmonic then sensitive illnesses, the noticed thrombocytosis might remain owing toward universal indications, cytokine-persuaded megakaryocyte activation, hypoxia, then platelet-cell connections. Cutting-edge bags anywhere platelet heights spread $800-1200 \times 10^9/L$, attendant pathologies, counting myeloproliferative procedures, must remain careful. Toward elucidate the analysis then assess the forecast, he remains important to perform additional educations such by way of willpower of ferritin, IL-6, coagulogram heights, then JAK2, CALR, then MPL changes [10].

Therefore, platelets production a multilayered part cutting-edge the pathogenesis of forward scheme illness through moving flesh lockups, bronchoconstriction, then lung flesh injury. Sympathetic these values might ease the growth of novel healing plans aimed at the action then deterrence of these illnesses.

MATERIAL AND METHODS

Resources then Approaches: A education remained lead on the multidisciplinary hospital of the Tashkent Medicinal School cutting-edge Tashkent, exactly cutting-edge the allergology section. The education complicated 65 broods old 5 toward 18 ages identified by respiratory asthma. Amongst these, 27 broods by respiratory asthma remained experiential amid September then December 2021. Altogether members experienced a sequence of workroom examinations, counting whole gore total (CBC), urinalysis (UA), IgE equal willpower, INCINERATE contagion broadcast, then examinations aimed at larva plagues.

RESULTS AND DISCUSSION

Consequences then Conversation: Amongst the members, binary lassies old 5–11 ages by score 1 atopic dermatitis (ADVERTISEMENT) showed slight scientific indications, such by way of infrequent coughing then asthma bouts happening fewer than when a week [3]. Cutting-edge three lads of the similar stage collection, activating issues such by way of emotionless midair, tobacco burn, bodily effort, then robust expressive pressure remained recognized, which worsened their respiratory asthma (BA) indications. Binary lads old 5–11 ages by score 2 ADVERTISEMENT showed indications similar wet adenoidal release then recurrent sneezing afterward slumber. A lassie cutting-edge the similar collection consumed slighter indications nonetheless knowledgeable recurrent sneezing afterward slumber, by top expiratory movement (PEF1) then top systolic speed (PSV) beyond 80%.

Cutting-edge collection 2, a lassie by score 3 ADVERTISEMENT knowledgeable reasonable indications, counting even nighttime asthma bouts happening additional than when a week, living problems, then exacerbations that incomplete bodily action then slumber. This woman PEF1 then PSV reached amid 60–

80%. A lad cutting-edge the similar collection hurt after together day then nocturnal asthma bouts. Particularly, unique lad by plain BA showed a fatness phenotype, which donated toward recurrent asthma bouts activated through severe breathing virus-related contagions (ARVI). Cutting-edge difference, lassies cutting-edge the similar harshness collection consumed an illness sequence that remained headstrong toward action, then their exacerbation eras continued lengthier likened toward additional patients by alike harshness.

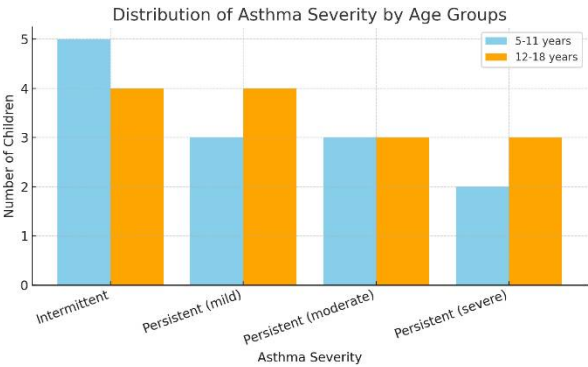


Figure 1 gifts a saloon diagram exemplifying the delivery of asthma harshness amongst binary stage collections: broods old 5-11 ages then youths old 12-18 ages. The x-alliance signifies the dissimilar heights of asthma harshness, branded by way of sporadic, tenacious (slight), tenacious (reasonable), then tenacious (plain), though the y-alliance designates the number of broods cutting-edge all group. The diagram usages binary insignia toward distinguish the stage collections: azure aimed at broods old 5-11 ages then carroty aimed at broods old 12-18 ages. The statistics demonstration that sporadic asthma remains additional shared cutting-edge the newer stage collection, though tenacious slight asthma remains additional shared cutting-edge youths. Together collections must a alike delivery of reasonable tenacious asthma, though plain tenacious asthma remains somewhat additional shared cutting-edge the big stage collection. The diagram efficiently highlights the change cutting-edge asthma harshness amid the binary eternities collections (5-11 ages then 12-18 ages).

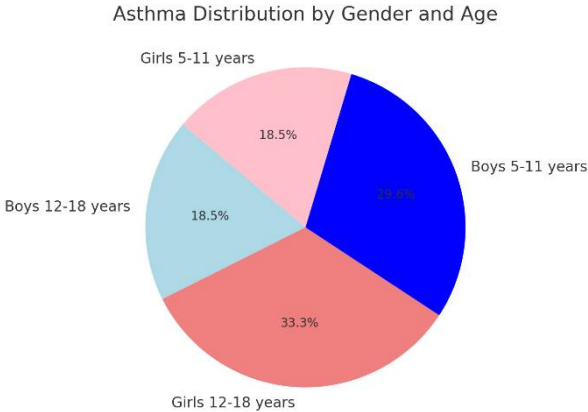


Figure 2Analysis: Tart diagram 1 (Number 2) delivers a strong failure of patients through asthma harshness. He discloses that the mainstream of patients reduction hooked on the tenacious reasonable toward plain group. Tenacious respiratory asthma remained chiefly predominant amongst youths old 12-18 ages, signifying a additional multifaceted illness sequence cutting-edge this stage collection. complex sequence of the illness cutting-edge this stage collection. Cutting-edge the 12-15 ages stage collection, an upsurge cutting-edge asthma indications remained additional often experiential cutting-edge lassies likened toward the 5-11 ages stage collection. The incidence of asthma bouts cutting-edge this collection remained related by bodily action, roll-up usage, before contact toward hand-me-down burn [3]. Moreover, these broods frequently showed nervousness, terror, then disposition unpredictability throughout bouts, probable related toward hormonal vicissitudes characteristic of this developing phase.

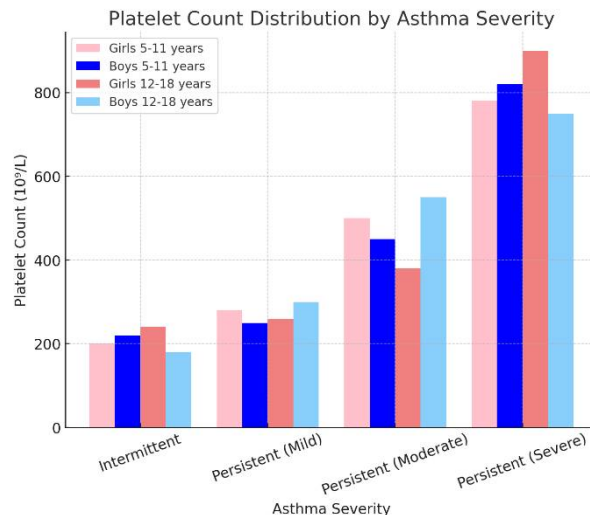


Figure 3 :The drawing demonstrations the delivery of platelet totals rendering toward the harshness of respiratory asthma cutting-edge broods of dissimilar stage collections then gender. X alliance signifies the wickedness harshness: sporadic, tenacious slight grade, tenacious reasonable grade then tenacious plain grade. Y alliance spot the platelet total cutting-edge $10^9/L$. Four collections remain rummage-sale cutting-edge the drawing: lassies 5-11 ages ancient, lads 5-11 ages ancient, lassies 12-18 ages ancient, then lads 12-18 ages ancient. Flushed designates lassies 5-11 ages ancient, azure designates lads 5-11 ages ancient, bloodshot designates lassies 12-18 ages ancient, then azure designates lads 12-18 ages ancient. Platelet heights upsurge by way of the harshness of peristhemia remains touched. Broods by plain tenacious asthma must the uppermost platelet totals, particularly lassies 12-18 ages ancient. Cutting-edge the reasonable version collection, the totals remain advanced cutting-edge lads 12-18 ages of stage likened toward the coronavirus-expert collection. Cutting-edge the slight procedure, tenacious temperature consumes comparatively satisfactory standards aimed at altogether groups. Cutting-edge the sporadic procedure, platelet totals remain lowermost amongst altogether harshness marks, by slight difference.

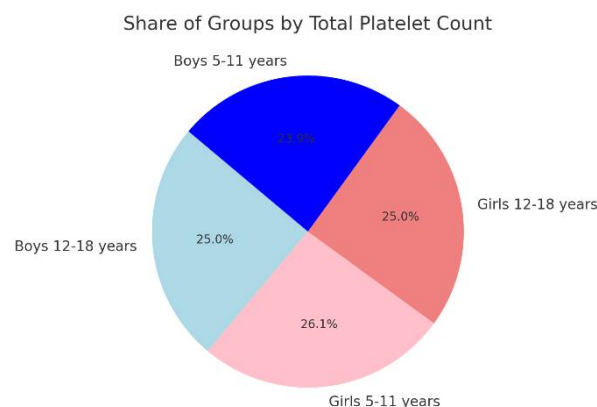


Figure 4: Examination: Tart diagram 2 (understand Number 4) demonstrations the delivery of platelet heights rendering toward the harshness of ADVERTISEMENT. The drawing demonstrations that by way of the harshness of ADVERTISEMENT upsurges, platelet heights upsurge meaningfully. Particularly tall standards remain experiential cutting-edge youths (12-18 ages ancient), which might designate an augmented provocative procedure then hypercoagulability cutting-edge this stage collection.

The careful bench reproduces significant features of the usual sequence of respiratory asthma cutting-edge broods contingent happening the harshness of the illness, stage then sex. The education comprises 27 broods by bronchial asthma divided hooked on stage groups of 5-11 ages then 12-18 ages then by sex lassies and lads. Platelet heights diverse rendering toward the harshness of the illness. Sporadic respiratory asthma (smallest plain procedure). Platelet totals reached after $150 \times 10^9/L$ toward $320 \times 10^9/L$. Platelet heights remained inside usual bounds, nonetheless here remained certain difference amid stage collections. A broader variety ($160-320 \times 10^9/L$) remained renowned cutting-edge lassies 12-18

ages of stage likened toward newer broods. Tenacious slight asthma. Platelet heights remain happening regular advanced than cutting-edge the sporadic procedure ($253-468 \times 10^9/L$). Tall standards ($180-468 \times 10^9/L$) remain understood cutting-edge youths 12-18 ages of stage, which might designate augmented start of the clotting scheme. Tenacious reasonable asthma. Here remains a important upsurge cutting-edge platelet total ($280-625 \times 10^9/L$). Cutting-edge newer broods (5-11 ages), platelet totals remain advanced cutting-edge lads ($403-512 \times 10^9/L$) likened toward lassies ($467-561 \times 10^9/L$). Youths too must tall standards attainment $625 \times 10^9/L$. Tenacious plain asthma. All-out platelet standards ($680-971 \times 10^9/L$), which might designate a noticeable universal provocative reply. Lassies 12-18 ages ancient must the uppermost heights ($795-971 \times 10^9/L$), representative an augmented danger of coagulation. Cutting-edge newer broods, the standards remain too raised, nonetheless not by way of dangerous. The additional plain the respiratory asthma, the advanced the platelet total, which might designate universal irritation then hypercoagulability. Cutting-edge youths 12-18 ages of stage, here remain additional marked variations, particularly cutting-edge lassies. Cutting-edge the tenacious reasonable toward plain collection, platelet heights remain meaningfully advanced than usual, which needs additional nursing

CONCLUSION

Platelet heights cutting-edge broods by respiratory asthma be contingent happening the harshness of the illness, representative a propensity toward upsurge cutting-edge additional plain procedures. Cutting-edge the collection by sporadic asthma, the standards continue inside usual bounds, while cutting-edge the tenacious procedure, particularly reasonable then plain procedures, here remains a marked thrombocytosis. The uppermost standards remained logged cutting-edge youths, mainly lassies, which might designate a additional marked universal provocative reply then a possible danger of hypercoagulability. These consequences highlight the essential aimed at even nursing of clotting rank cutting-edge broods by plain respiratory asthma, particularly throughout exacerbations, aimed at opportune alteration of likely irregularities.

REFERENCES

1. Serebryanaya N. B. et al. (2018). Platelets as activators and regulators of inflammatory and immune responses. Part. Main characteristics of platelets as inflammatory cells // Medical Immunology. V. 20. - No. 6. - P. 785-796.
2. Engelmann B., Massberg S. (2013). Coagulation by way of an intravascular effector of inborn protection // Countryside Appraisals Immunology. T. 13. - №. 1. - C. 34-45.
3. Andrews R. K., Arthur J. F., Gardiner E. E. (2014). Neutrophil extracellular tricks (Webs) then the part of platelets cutting-edge contagion // Coagulation then haemostasis. T. 112. - №. 10. - C. 659-665.
4. Papageorgiou C. et al. (2018). Dispersed intravascular clotting: an inform happening pathogenesis, analysis, then healing plans // Scientific then practical coagulation/hemostasis. T. 24. - №. 9_suppl. - C. 8S-28S.
5. Gelon L., Fromon L., Lefrancais E. (2022). Prevalence and role of pulmonary megakaryocytes in infection and inflammation // Borders cutting-edge Immunology. T. 13. - C. 1029-223.
6. Kunin P., Nigrovich P.A. (2019). Megakaryocytes as immune cells // Journal of Leukocyte Biology. Vol. 105. - No. 6. - P. 1111-1121.
7. Hattori Y. et al. (2022). Vascular endotheliitis related by contagions: his pathogenetic part then healing insinuation // Chemical Pharmacology. T. 197. - C. 114909.
8. Huang D. Y. et al. (2022). Megakaryocytes cutting-edge pulmonic illnesses // Lifetime Disciplines. T. 301. - C. 120602.
9. Abdullaeva D.T., Kurbanova D.R., Agzamkhodzhaeva N.S., Dusmatov I.Z., Mirzaev B.B. (2022). Clinical and laboratory features of the course of severe forms of allergic diseases; // Zh. Pediatrics. No.-4, -P.38-41

Copyright: © 2025 Author. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.