Assessing Referral and Corticosteroids Initiation Patterns in Immune Thrombocytopenia: A 2023 Patient Cohort Study at the Royal United Hospital, Bath.

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Introduction

Isolated true thrombocytopenia, marked by a reduction in platelet count (< 150 10*9/L), is a relatively common finding on routine full blood counts and has various aetiologies. Hence it poses as a diagnostic dilemma for general practitioners (GP), particularly concerning the optimal timing for referral.

Immune Thrombocytopenia (ITP), namely one of the causes of true isolated thrombocytopenia, is an acquired autoimmune disorder and a diagnosis of exclusion. Its prevalence is estimated to be 2 to 5 per 100,000 persons in the general population and first line therapy includes corticosteroids; Prednisolone or Dexamethasone (see diagram 1 for mechanism of action). Decision of when to commence treatment varies and is usually based on multiple factors (includes degree of thrombocytopenia, presenting symptoms, patient comorbidities, medication and age) (Neunert *et al.,* 2019).

Aims

This study seeks to explore referral patterns and corticosteroid initiation strategies in patients with immune thrombocytopenia to elucidate sources of referral, clinical presentations, and treatment outcomes. This is done with the intention of improving and standardising patient care.

Methods

A retrospective analysis was conducted on 18 patients diagnosed with true immune thrombocytopenia referred to the Royal University Hospital in 2023.

Inclusion criteria included:
- True isolated thrombocytopenia managed as ITP.
- Presentation in 2023.

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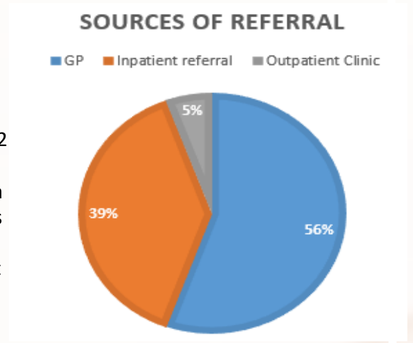
References:
Martínez-Carballeira D, Bernardo Á, Caro A, Soto I and Gutiérrez L. (2024). Treatment of Immune Thrombocytopenia: Contextualization from a Historical Perspective. *Hematology Reports*. 2024; 16(3):390-412.
Neunert, C., Vesely, S.K., Mithoowani, S. and Kim, T. (2019). Management of Immune Thrombocytopenia (ITP).
Steensma, V. (2019). Hoffbrand's Essential Haematology. 8th ed. S.L.: Wiley-Blackwell.

Results

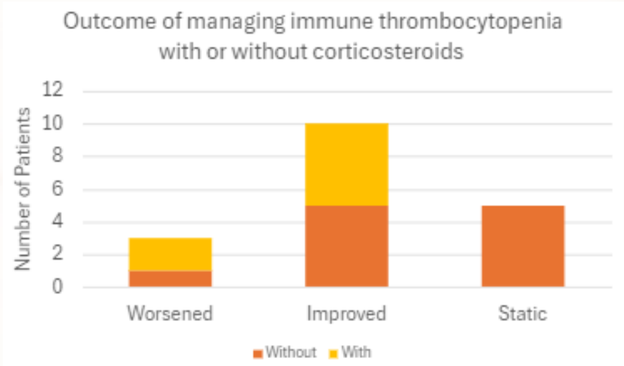
A total of 18 patients with immune thrombocytopenia were referred to the RUH in 2023.

- The average platelet count at referral was 69 (10^9/L) for GP referrals and 32 (10^9/L) for hospital referrals. The average duration of thrombocytopenia noted before referral was 18.5 months for GP referrals and 10 months for hospital referrals. Notably, one patient referred from a hospital setting had thrombocytopenia persisting for 56 months before incidental discovery during inpatient care.



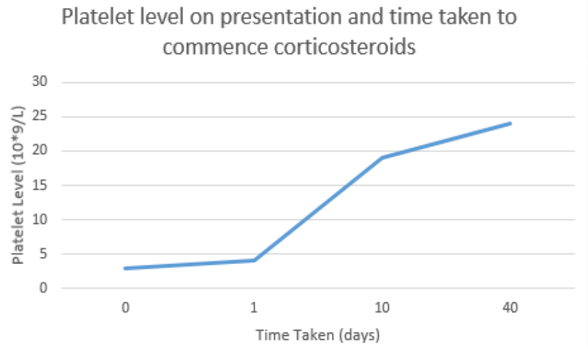
Graph 1: Sources of referrals for patients who are diagnosed with immune thrombocytopenia.

- Incidental findings accounted for 22% of cases. This composed of hospital referrals (75%) and GP referrals.
- Prior to referral, ongoing monitoring was documented in 61% of cases, all of which were exclusively from GP referrals, demonstrating sustained platelet levels above 50 (10^9/L).
- Patients with bleeding/petechial rash or cutaneous bruising constituted 17% of referrals, exclusively originating from hospital sources. Forty-two % of these patients were initiated with corticosteroid therapy +/- platelet transfusions. The rest had regular platelet count monitoring in the community with follow-up in the hospital. Thirty- three% required a repeat course of steroids and 1/3 of those required 2nd line therapy.



Graph 2: Demonstrating outcomes; effects of platelet count with or without Corticosteroids for the management of patients diagnosed with immune thrombocytopenia.

- Patients were typically reviewed in clinic within an average time frame of 38 days from both GP referrals and hospital referrals. GP referrals specifically were noted to have an average time frame of 45 days until reviewed in outpatient clinic, whereas referrals from hospital averaged 51 days. However, it is important to note that of all hospital referrals, the patients were reviewed promptly prior to discharge.
- Of significance, 50% of hospital referrals and 11% of GP referrals underwent ad-hoc monitoring (on a medical list) until outpatient clinic review.



Graph 3: Showing platelet level and time taken to start corticosteroids for immune thrombocytopenia.

Conclusion

This study highlights variations in referral patterns and clinical presentation of immune thrombocytopenia. It emphasizes the importance of symptom identification, tailored community monitoring and facilitating timely intervention. This study explores the possibility of delaying steroid treatment with regular monitoring in the community. However, as it is a small study, the timing of corticosteroid initiation in persistent thrombocytopenia warrants further investigation. Recommendations for refining guidelines and optimising patient outcomes are required.

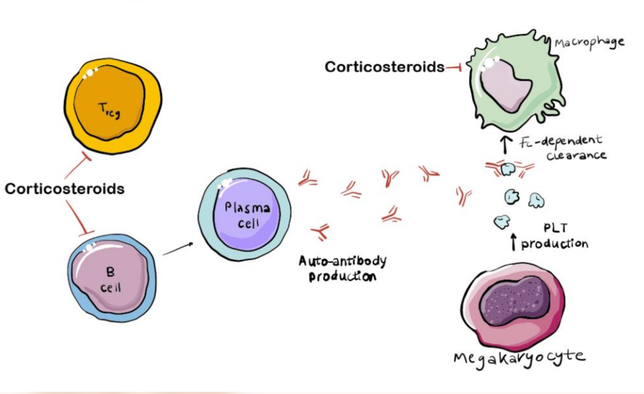


Diagram 1: Mechanism of action of corticosteroids in immune thrombocytopenia. This includes suppression of reticulo-endothelial phagocytic function and reduction of autoantibody production.
T reg- Regulatory T cells.
(Martínez-Carballeira et al., 2024).