How well do you know the multiple dimensions of ITP?

Take this short quiz to understand the impact ITP has on patients' lives.

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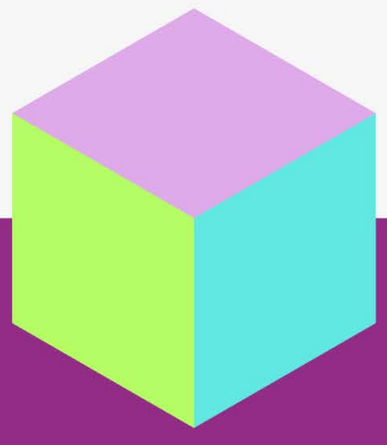
ITP=immune thrombocytopenia.



QUIZ

1 Question — 2 Question — 3 Question — 4 Question — 5 Question

In ITP, which cells produce the autoantibodies that both mark platelets for destruction and impair platelet production?

- **A.** Macrophages
- **C.** T cells
- **B.** B cells
- **D.** Megakaryocytes

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Correct!

Answer: B. B cells

In ITP, autoreactive B cells produce autoantibodies that mark platelets for destruction by macrophages and impair megakaryocyte maturation, which then inhibits platelet production.[1]

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Reference:

1. Cooper N, Ghanima W. Immune thrombocytopenia. *N Engl J Med.* 2019;381(10):945-955. doi:10.1056/NEJMcp1810479

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The correct answer is:

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In ITP, which cells produce the autoantibodies that both mark platelets for destruction and impair platelet production?

This experience will reset in

09

seconds

Would you like to continue?

Yes > No >

The co

Answer: B. B ce

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1 Question — 2 Question — 3 Question — 4 Question — 5 Question

Which enzyme drives key processes in B cells and macrophages?

- **A.** TNF-α
- **C.** Bruton's tyrosine kinase (BTK)
- **B.** Inflammasome
- **D.** CD40L

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- ○ **B.** Inflammasome
- ○ **D.** CD40L

Correct!

Answer: C. Bruton's tyrosine kinase (BTK)

B cells are critical to autoantibody production and macrophages are critical to phagocytosis. Both of these processes are regulated by BTK.[1,2]

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References:

1. Zhu S, Gokhale S, Jung J, et al. Multifaceted immunomodulatory effects of the BTK inhibitors ibrutinib and acalabrutinib on different immune cell subsets - beyond B lymphocytes. *Front Cell Dev Biol.* 2021;9:727531. doi:10.3389/fcell.2021.727531
2. Neys SFH, Hendriks RW, Corneth OBJ. Targeting Bruton's tyrosine kinase in inflammatory and autoimmune pathologies. *Front Cell Dev Biol.* 2021;9:668131. doi:10.3389/fcell.2021.668131

QUIZ

1 Question | 2 Question | 3 Question | 4 Question | 5 Question

In the I-WISh survey, 58% of patients reported feeling fatigue at the time of their ITP diagnosis. Of those patients, how many said their fatigue was severe?

- **A.** 58%
- **C.** 30%
- **B.** 80%
- **D.** 73%

I-WISh=Immune Thrombocytopenia World Impact Survey.

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- ◉ **D. 73%**

Correct!

Answer: D. 73%

HCPs may not perceive fatigue at the same levels as patients. While 73% of patients at diagnosis who reported fatigue said it was severe, HCPs said just 46% of their patients' fatigue was severe.[1]

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Reference:

1. Cooper N, Kruse A, Kruse C, et al. Immune thrombocytopenia (ITP) World Impact Survey (iWISh): patient and physician perceptions of diagnosis, signs and symptoms, and treatment [published correction appears in *Am J Hematol.* 2021;96(10):1343]. *Am J Hematol.* 2021;96(2):188-198. doi:10.1002/ajh.26045

QUIZ

1 Question 2 Question 3 Question 4 Question 5 Question

True or false: Patients with ITP may also experience cerebral microbleeds (CMBs).

- **A.** True
- **B.** False

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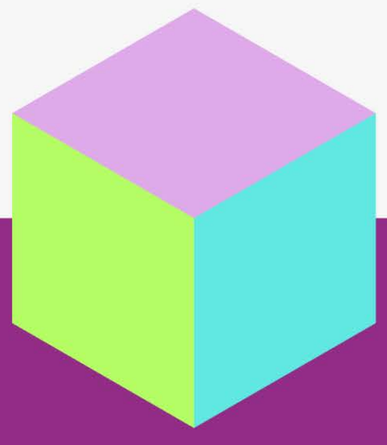

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True or false: Patients with ITP may also experience cerebral microbleeds (CMBs).

- **A. True**
- **B.** False

Correct!

Answer: A. True

In a 2020 study published in *Blood*,* 43% of patients with ITP also had cerebral microbleeds. Based on these preliminary data, CMBs were associated with lower platelet count and longer disease duration. The strong association between CMBs and ITP duration could indicate that CMBs accumulate over time.[1]

*A cross-sectional prospective study of 49 patients with ITP and nadir platelet counts <30 x 10^9/L and 18 age-matched healthy controls that used susceptibility-weighted magnetic resonance imaging to detect CMBs as a marker of occult hemorrhage.[1]

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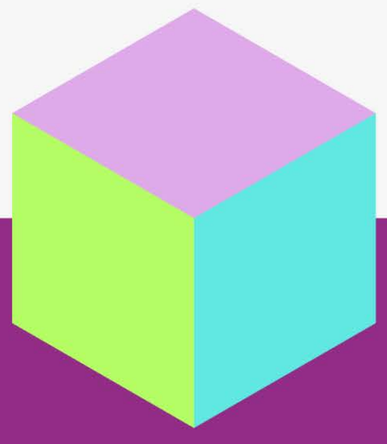
Reference:

1. Cooper N, Morrison MA, Vladescu C, et al. Identification of occult cerebral microbleeds in adults with immune thrombocytopenia. *Blood.* 2020;136(25):2875-2880. doi:10.1182/blood.2020004858



QUIZ

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True or false: Cognitive impairment may also be associated with ITP.

- **A.** True
- **B.** False

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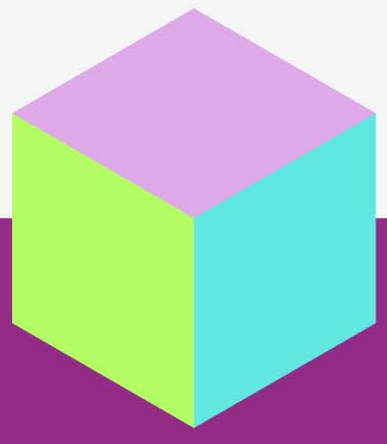

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True or false: Cognitive impairment may also be associated with ITP.

- **A. True**
- **B.** False

Correct!

Answer: A. True

In a 2022 study published in *Blood*,* 50% of patients with ITP experienced cognitive impairment.[1]

*A total of 69 patients completed the Cambridge Neuropsychological Test Automated Battery (CANTAB) to assess episodic memory, executive function, processing speed, working memory, and attention.[1]

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Reference:

1. Vladescu C, Hart ACJ, Paul D, et al. Cognitive impairment in patients with immune thrombocytopenia. *Blood.* 2022;140(suppl 1):5553–5554. doi:10.1182/blood-2022-166412

Congratulations! You completed the quiz.

Explore more dimensions of ITP at UnderstandingITP.com.

Restart quiz

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