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# **A case of vitiligo after COVID-19 vaccination: a possible role of thymic dysfunction**

**Key words: COVID-19 vaccination; Vitiligo; Autoimmunity; Thymus;  
T cells**

# ***Research Summary***

**This article focuses on a case of vitiligo following COVID19 vaccination and describes the possible mechanism of this autoimmune skin lesion:**

- **Link 1. Effects of trauma, stress, depression, acute and chronic infection, vaccination, cytostatics, age-related involution of the thymus.**
- **Link 2. Limitation of alternative mRNA splicing in the thymus leads to a "vulnerability" in the negative selection system.**
- **Link 3. Disruption of negative selection of autoreactive cells during T-cell maturation in the thymus and their migration to the periphery under the influence of negative factors.**
- **Link 4. Melanocyte oxidative stress triggers an immune attack.**

# Innovation points

- Introduction of a new understanding of the mechanisms of autoimmune lesions after vaccination

- Summary of the obtained experimental data and their discussion in the context of clinical practice.

- Emphasis on the existence of a single mechanism of autoimmune complications after vaccination in which thymus dysfunction plays a critical role.

