Journal of Clinical & Experimental Pathology

Kim, J Clin Exp Pathol 2021, 11:4

Editorial Open Access

A Short Note on Hyperplasia and its Side Effects

Atsushi Kim*

Division of Pathobiology and Immunology, Kyoto University Hospital, Kyoto, Japan

***Corresponding author:** Atsushi Kim, Division of Pathobiology and Immunology, Kyoto University Hospital, Faculty of Medicine, Kyoto, Japan, E-mail: AKim@yahoo.com

Received date: August 02, 2021; **Accepted date:** August 16, 2021; **Published date:** August 23, 2021

Citation: Kim A (2021) A Short Note on Hyperplasia and its Side Effects. J Clin Exp Pathol 11: e134.

Description

Hyperplasia is an increase in the number of organic tissues caused by cell proliferation. It can cause significant enlargement of organs. Hyperplasia is a common response to stimuli. These cells look like normal cells, but their numbers have increased. Sometimes the cells becomes larger. Hyperplasia is different from hypertrophy. The adaptive cell change of hypertrophy is an increase in cell size, while hyperplasia involves an increase in the number of cells. Hyperplasia may be harmless and occur in certain tissues. An example of a normal proliferative response is the milk-secreting gland cells in the breast that grow and multiply after pregnancy to prepare for future breastfeeding. Hyperplasia is seen as a physiological response to a specific stimulus, and proliferating cells are still affected by normal regulatory control mechanisms. However, if excessive hormones or growth factors cause irritation, hyperplasia can occur as a pathological response. Similar to physiological hyperplasia, cells that undergo pathological hyperplasia are controlled by growth hormone, if these stimuli are removed, the cells will stop proliferating. This is different from neoplasia, in which genetically abnormal cells manage to proliferate unphysiologically and do not respond to normal stimuli. The consequences of pathological hyperplasia can provide a suitable basis for the development of tumor cells.

Hyperplasia can be caused by a variety of reasons, including the proliferation of the basal layer of the epidermis to compensate for the misfortune of the skin, continuous irritation, hormonal dysfunction, or compensation for injury or infection. Hyperplasia can occur in specific tissues. An example of a typical proliferative response is the development and enlargement of glandular cells, which drain milk into the breast in response to pregnancy and plan future breasts accordingly. Endometrial hyperplasia is usually caused by too much estrogen without progesterone. The treatment of hyperplasia relies on benign prostatic hyperplasia, and the combination of alpha 1 receptor blockers and 5 alpha reductase inhibitors is effective.

Hyperplasia occurs through two basic systems. Initially, muscle fibers can be divided into at least two more common filaments. The second is that when muscles are damaged, specific cells called satellite cells are activated that can connect to form new muscle filaments. The common side effects of hyperplasia include:

- Acne
- Bleeding or spotting between feminine periods
- Dryness of the vagina
- Excessive development of body hair
- Heavy draining during your feminine period (menorrhagia)
- Hot streaks or hot flushes
- Missed feminine periods
- Mood swings
- Pain during sex
- Rapid pulse (tachycardia)
- Severe weariness
- Tenderness of the vagina

The types of hyperplasia are physiological hyperplasia and pathological hyperplasia. Physiological hyperplasia occurs due to a common source of stress. For example, breast enlargement during pregnancy, endometrium thickening in women's cycle, and liver development after midway resection. Pathological hyperplasia occurs due to abnormal stressors. For example, the development of adrenal organs due to the production of ACTH by pituitary adenomas, and the expansion of the endometrium due to delayed stimulation by estrogen.