

Effect of Helicobacter Pylori Infection on Development of Gastric Cancer

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Abstract:

Gastric cancer is the most common cancer in the world which is multi-factorial and classified as diffuse and intestinal type. Approximately 40% of patients never report tumor-related symptoms before diagnosis, so most gastric cancer cases are advanced-type. Thus, prevention may be the most promising strategy for cancer control. Some important risk factors are: older age (most people who are diagnosed are between age 60 and 80), male sex, tobacco smoking, alcohol, diet and family history, Helicobacter pylori infection (H. pylori is a Gram-negative bacteria with about 3.5 micron length and 0.5 micron width that specifically colonizes the gastric epithelium and it has infected nearly 50% of population) [1,2].

The development of the intestinal type pursues the consecutive procedure from superficial gastritis to chronic atrophic gastritis to intestinal metaplasia, then to dysplasia and finally to gastric adenocarcinoma. During occurrence gastric cancer, genetic predisposition, infection and diet are identified as part of a complex interaction, among which the ongoing local chronic inflammatory induced by H.pylori is likely to be one of major factors for gastric lymphoma development. However, only a small percentage of colonized individuals develop clinically apparent sequelae, although all persons carrying H.pylori have coexisting gastric inflammation [1].

Prevention from H.pylori is mainly based on behavior modifications. Prevention through dietary intervention would include increased fruit, allium, and non-starchy vegetable intake and reduced ingestion of salt or salt-preserved foods and N-nitroso compounds, also smoking cessation may lower the risk of the disease. [2]

One of the most common cause of death, gastric cancer, can be diagnosed by a simple test and also might be treated based on the stage of the patient and where the cancer started in the stomach but generally it is better to prevent than to treat because prevention includes behavioral managements which are easier.

Key words: Helicobacter pylori, Gastric cancer.

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Neurogenesis in the adult

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Abstract:

Neurogenesis is the process where the neurons and glial cells can be differentiated from a precursor cells in the nervous tissue.

In 1962 Altzman was the first scientist who discovered the new born of neurons in the experiments conducted on rodents. He used the auto-radiographic method after lesions of the brain areas and intracranial injection of thymidine H³ induced proliferation of the cells in this damaged areas. In the different experiments carried on mammals and birds using the same methods and the same substance thymidine H³ Kaplan and Hinds (1977), Goldman and Nottebohm (1983) shown proliferation of the cells in the dental gyrus and olfactory bulb. So years after Kaplan and Hinds, Goldman and Nottebohm confirmed this discovery.

Current evidence (Blackmore, et. al., 2012) shows that even GH supplies neoprogenesis in the experiments in vivo and in vitro. And much more in specific regions of the brain the neurons can be generated daily by different external and internal stimuli factors. Approximately 700 new neurons (Kirsty L, et. al, 2015) daily are generated in the hippocampus, sub ventricular zone, and the dentate gyrus, where the mesenchymal cells or neuro stem cells differentiate and migrate to the potential aimed zone. According to collecting data daily activity, dietary and mood effect neurogenesis: daily physical activity, sexual activity, inserting new information (reading) on a daily basis or communicate with new people and especially a good night sleep can significantly stimulate neurogenesis. This researches have the impact at the modern medicine to cure many diseases which happen in the brain (Alzheimer), brain. traumas. And lesions. Despite the odds this researches are developing till now days and the obtained results may be applied in the clinics.

Conclusion: Obtain data can allow us to make such kind of conclusion: good sleep physical and mental activity, good dietary, supposed to supply neurogenesis and also, can protect from neurodegenerative disorders.

Abbreviations: (svz) sub ventricle zone, (NSC) neural stem cell

Key words: hippocampus dentate gyrus neurogenesis

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