

Abstract

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Title of Thesis: Risks Associated with the Dietary Supplements Use

The worldwide increase of dietary supplements use, the way they are marketed and the limited information about safety of these products open the space to make new studies and thus to increase the safety of dietary supplements use in general public.

In this dissertation, four individual topics related to the dietary supplements use were addressed:

- the safety of the use of additives in dietary supplements,
- allergy-like reactions to herbal products in children,
- the quality of information on the Internet relating to dietary supplements,
- the dietary supplements use by patients in the pre-operative period.

The results of individual studies carried out in the framework of the dissertation showed potential risks associated with the dietary supplements use. Besides undesirable side effects of dietary supplements and interactions, potential side effects have been reported with some additives, especially if the patient is receiving the additive simultaneously in several dietary supplements or with food. Undesirable effects of hypersensitivity reactions have been explored in more detail in the child population according to Vigibase® data. Buying dietary supplements on the Internet also poses a risk to the patient, where in many cases the patient may receive inadequate information about the product, which may lead to inappropriate use, late diagnosis or affecting human health. It has been found out that the quality of the information on the Internet presented on dietary supplements was inadequate in many cases (presenting unapproved health claims, missing information about the manufacturer). Last but not least, there have been reported the risks of taking dietary supplements by patients in pre-operative

period, when the used products can interact with anesthesia and the medication associated with a surgery (affecting the surgery and the postoperative health of the patient).