



Usage of Cholera toxin as a new laxative and purgative drug

Mert Rusen Gulsen

ABSTRACT

Chronic constipation is an important health problem which is very frequently observed amongst the population. If the non-drug precautions have failed in the case of idiopathic and functional types of constipation, then laxatives are being used. To make overdose medicine and toxic substances evacuate faster, purgatives are being used. Colon cleansing is a process which is frequently used in medicine. With current drugs it is not always possible to provide perfect cleansing. Especially in colonoscopy, unless the cleansing is perfect, the physician can not evaluate intestines therefore patient should try to be prepared to get colonoscopy again. This also increases the cost of the preparation. These medicines also have side effects that disturb the comfort of the patient. For these reasons, the search for medicines that can effectively cleanse the colon with minimal side effects continues. The idea of mine, using *Vibrio cholerae* toxin as a medicine, was based on *Clostridium botulinum* toxin being used commonly in medicine. Cholera toxin is used in different diseases, primarily in vaccination, and began to get positive results. But there are no data about cholera toxin being used as laxative in chronic constipation or as purgative in necessary indications, which were asserted in my hypothesis. According to data in the literature about the toxin, these kinds of applications of cholera toxin are quite possible. Cholera toxin -that can be obtained with currently available techniques- could find itself a place in the market, only after tested as laxative and purgative with correct dosage findings in animals and after in human volunteers. If the outcome is positive then the phase studies would be done. Being easy to be extracted and being effective are giving hope that cholera toxin can be used as a new laxative or purgative drug in future.

KEY WORDS: Cholera toxin; Constipation; Colon cleansing

Hacettepe University Medical Faculty
(English), Phase 2 Student, Ankara

Address for correspondence:

Mert Rusen Gulsen,
Hacettepe University Medical Faculty
(English), Phase 2 Student, Ankara.

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