

Preliminary clinical report of 2LC reagent for early gastric cancer diagnosis

Min Li, Xue-Zhong Chen, Zhi-Xue Lin, Ling Chen

Min Li, Xue-Zhong Chen, Ling Chen, Gansu Cancer Hospital, Lanzhou 730050, Gansu Province, China

Zhi-Xue Lin, The School of Life Science, Shanghai University, No. 20, Cheng-Zhong Road, Jia-Ding District, Shanghai 201800, China

Author contributions: All authors contributed equally to the work.

Correspondence to: **Min Li and Xue-Zhong Chen**, Gansu Cancer Hospital, No. 2, Easten Xiao Xi Hu Road, Lanzhou 730050, Gansu Province, China. liuzhixue@citiz.net
Telephone: +86-21-59532932-971
Fax: +86-21-59929302

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Abstract

AIM: To explore the feasibility of early gastric cancer diagnosis with 2 LC reagent, and to establish a gross exploration method for early gastric cancer with the reagent based on the feasibility.

METHODS: Add 30 mg or 03 mL 2LC reagent into 5 mL urinary sample, observe the change of urinary, and analyze the sample on DAO-JIN-UV-260 Ultraviolet analyzer at 190-700 nm, then, record the absorbance at 490 nm. To determine best stage of sample, take some samples on 8:00 pm and 8:00 am, respectively. To select best dosage of 2LC, take the test with different concentrations. To test the effect of operation, conduct the experiment in different stages before and after the operation for the patients with gastric cancer. Two parallel samples were taken each time in the whole

experiment.

RESULTS: Red compound produced by some reactions when the 2LC reagent was added into the urinary of patients with gastric cancer, and the urine had obvious absorptivity at about 490 nm (positive). There was almost no reaction in the urine of other samples (negative). A total of 172 samples were tested, the positive rate of gastric cancer was above 90% in 48 samples before the operation, in which 8 advanced gastric cancer and 9 early stage gastric cancer samples behaved stronger positive reaction. The positive rate of 118 other samples was less than 10%. The urine taken in the morning was batter than that in the evening. The best dosage of 2LC was 6 mg/mL for crystal and 0.05 mL/mL for liquid. The test results of gastric cancer patients with postoperative tumor recrudescence or transfer were positive, and the others were negative.

CONCLUSION: There is a high feasibility in manipulation simplification, specificity and receptivity of 2LC reagent for early gastric cancer detection, and the characteristics mentioned above will be improved based on the advanced raw material used and the style of the 2LC reagent. It is an effective gross exploration method for early gastric cancer with the 2LC reagent, and can determine the effect of operation for the gastric cancer.

Key words: Stomach neoplasms; Early detection; 2LC reagent; Mass screening; Urine

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