

Old remedy shows promise as new chemo drug for bladder cancer

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An old home remedy called ipecac syrup, once stocked in medicine cabinets in case of accidental poisoning, is showing promise as a new chemotherapy drug for bladder cancer.

Years ago, ipecac syrup was used to induce vomiting in poisoning cases. Now a Loyola University Medical Center study has found that the [active ingredient](#) of ipecac syrup effectively inhibits the growth of [bladder cancer](#) cells, especially when combined with a standard chemotherapy drug.

The study by corresponding authors Kimberly Foreman, PhD, Gopal Gupta, MD, and colleagues is published online ahead of print in *The Journal of Urology*.

The active ingredient of ipecac syrup comes from the flowering plant *Psychotria ipecacuanha*. The drug no longer is recommended to induce vomiting. Studies have shown that vomiting after swallowing poison does not help, and sometimes can harm. Moreover, ipecac syrup can be abused by people with eating disorders.

Two small studies published in 1969 and 1970 found that the active ingredient of ipecac syrup, emetine dihydrochloride, helped in treating bladder cancer. Recent studies have found emetine also can kill leukemia cells.

In the new study, Loyola researchers exposed cell lines of normal and

cancerous bladder cells to emetine alone and to emetine plus cisplatin. (Cisplatin is the standard chemotherapy drug for advanced bladder cancer.)

The study found, for the first time, that:

- Emetine alone inhibits the proliferation of bladder cancer cell lines.
- Emetine acts synergistically with cisplatin to inhibit bladder cancer proliferation better than either drug does alone.
- Emetine has little effect on normal cells.

Bladder cancer is the fourth most common cancer in men and the 9th most common cancer in women. But even with aggressive surgery and chemotherapy, the five-year survival rate for patients with advanced Stage 4 bladder cancer is only 4 to 20 percent.

"There is an urgent need to develop new drug combinations," Dr. Gupta said. "Our study demonstrates that combining emetine with cisplatin is potentially beneficial, and merits further study in clinical trials."

Provided by Loyola University Health System

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