

The effect of aromatherapy using Lavender (*Lavandula angustifolia* Miller) and *Citrus aurantium* L. extracts to treat anxiety of patients undergoing laparoscopic cholecystectomy: A randomized clinical trial in Iran.

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Abstract: Aromatherapy is a form of complementary medicine that is known to induce relaxation which might decrease or alleviate symptoms caused by anxiety.

Laparoscopic cholecystectomy while performed millions of times and is considered the gold standard for gallbladder removal - people still experience fear regarding the outcome and anesthesia. Lavender is well known for its tranquilizing and anti-anxiety benefits. *Citrus aurantium* is also known for its ability to reduce anxiety.

Aromatherapy has an application in medicine especially with anxiety. This study was completed to compare the effects of aromatherapy using *Lavandula angustifolia* or *Citrus aurantium* on anxiety of patients undergoing laparoscopic cholecystectomy.

Context: Anxiety is a problem for most people who are awaiting surgery. Anxiety can stimulate the sympathetic, parasympathetic, and endocrine systems which may lead to tachycardia and hypertension. Long term anxiety is thought to result in protein denaturation which could lead to reduced wound healing, decline in immune response, increased infection rates, and electrolyte imbalances. Age is one of the main factors influencing anxiety.

Aims: To compare the results of using *Lavandula angustifolia* and *Citrus aurantium* to reduce preoperative anxiety.

Methods: 90 patients undergoing laparoscopic cholecystectomy were included in the study. Randomly assigned to 3 groups: control (odorless oil), *Lavandula angustifolia* and the *Citrus aurantium*. Each oil was inhaled for 20 minutes. Anxiety was tested pre and post intervention. Each oil underwent testing by gas chromatography.

Results: Testing was completed using State and trait anxiety and compared to the control group. The control group was noted to have increased severity of anxiety and both aromatherapy groups decreased the severity of anxiety compared to the control.

Conclusions: There was no significant difference between the *Lavandula angustifolia* and the *Citrus aurantium* group - therefore either essential oil may be applied and useful in the hospital setting to alleviate preoperative anxiety.

See the full paper here:

http://bmrat.org/index.php/BMRAT/article/view/423#article_tab