Scand J Gastroenterol. 1998 Feb;33(2):118-22.

Different effects of white and red wine on lower esophageal sphincter pressure and gastroesophageal reflux.

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Author information

Abstract

BACKGROUND:

White wine and beer induce gastroesophageal reflux (GER). We investigated the effects of white and red wine on lower esophageal sphincter pressure (LESP) and GER.

METHODS:

Twenty healthy volunteers received 300 ml white wine, red wine, or water together with a standardized meal. The LESP was continuously monitored with a Dent sleeve the 1st h postprandially, and the esophageal pH measured with a glass pH electrode.

RESULTS:

The LESP was decreased after intake of white wine (median, 14.9 mmHg; range, 5.6-19.5 mmHg) compared with red wine (20.4 mmHg; 13.1-22.3 mmHg; $P < 0.05$) and tap water (19.5 mmHg; 16.2-29.1 mmHg; $P < 0.01$). The fraction time esophageal pH <4 was increased after both alcoholic beverages compared with tap water (0.9%; 0.2-5.8%; $P < 0.01$ versus white wine, $P < 0.05$ versus red wine) with a greater fraction time after white wine (13.2; 0.3-58.1) than after red wine (2.3; 0.7-24.4; $P < 0.05$). The decreased sphincter pressure after white wine was accompanied by a change in the reflux pattern with increased 'stress reflux' and the occurrence of 'free reflux'.

CONCLUSION:

White wine and red wine exert different effects on LESP and GER.

Aliment Pharmacol Ther. 2006 Jun 1;23(11):1581-6.

White wine and beer induce gastro-oesophageal reflux in patients with reflux disease.

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Author information

Abstract

BACKGROUND:

An induction of gastro-oesophageal reflux has been reported after ingestion of alcoholic beverages in healthy volunteers. However, it is unknown whether reflux in gastro-oesophageal reflux disease patients will be enhanced by the ingestion of alcoholic beverages.

AIM:

To investigate the effects of wine and beer on postprandial reflux in reflux patients.

METHODS:

Twenty-five patients (reflux oesophagitis 15, non-erosive reflux disease 10; 18 men and seven women) drank 300-mL white wine(n = 17), 500-mL beer (n = 8), or identical amounts of tap water (controls) together with a standardized meal in a randomized order. pH-measurement was carried out during three postprandial hours by pH-metry and the percentage of time pH < 4 was calculated.

RESULTS:

Both alcoholic beverages increased reflux compared with water [wine 23% (median), water 12%, P < 0.01; beer 25%, water 11%, P < 0.05]. Between wine and beer, no difference in reflux induction was obtained. The reflux induction was seen in patients with (23%, P < 0.01) and without reflux oesophagitis (22%, P < 0.05) and in both sexes (women 23%, men 25%, P < 0.05 each).

CONCLUSIONS:

Ingestion of commonly consumed alcoholic beverages such as wine and beer induces gastro-oesophageal reflux in gastro-oesophageal reflux disease patients. Therefore, these patients should be advised to avoid the intake of large amounts (> or = 300 mL) of these beverages.

Rev Recent Clin Trials. 2016;11(3):191-5.

The Effect of Alcohol on Gastrointestinal Motility.

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Abstract

The Gastrointestinal (GI) tract is one of the most affected systems by alcohol consumption. Alcohol can affect the esophagus in several ways: induces mucosal inflammation, increases the risk for Barrett esophagus and esophageal cancer, and also impairs the esophageal motility. Numerous studies have reported an increased prevalence of Gastroesophageal Reflux Disease (GERD) or erosive esophagitis in alcoholics. Some alcoholics exhibit an abnormality of esophageal motility known as a "nutcracker esophagus". Alcohol effect on gastric motility depends on the alcohol concentration. In general, beverages with high alcohol concentrations (i.e., above 15 percent)

appear to inhibit gastric motility and low alcohol doses (wine and beer) accelerate gastric emptying. Also, acute administration of ethanol inhibits the gastric emptying, while chronic administration of a large dose of alcohol accelerates gastric motility. The effect of alcohol on small bowel motility differs according to the type of consumption (acute or chronic). Acute administration of alcohol has been found to inhibit small bowel transit and chronic administration of a large dose of alcohol accelerates small bowel transit. This article reviews some of the below findings.

Neurogastroenterol Motil. 2011 Feb;23(2):145-50, e29. doi: 10.1111/j.1365-2982.2010.01614.x. Epub 2010 Oct 12.

Effect of low-proof alcoholic beverages on duodenogastro-esophageal reflux in health and GERD.

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Author information

Abstract

BACKGROUND:

Alcoholic beverages are known to increase acidic gastro-esophageal reflux (GER) and the risk of esophagitis. Moreover, duodenogastro-esophageal reflux (DGER), containing bile acids, was shown to harmfully alter the esophageal mucosa, alone and synergistically with HCl and pepsin. However, studies directly addressing potential effects of different low proof alcoholic beverages on DGER in health and disease are missing.

METHODS:

Bilitec readings for beer and white, rose, and red wine were obtained in vitro from pure and from mixtures with bile. One-hour DGER monitoring and pH-metry were performed in 12 healthy subjects and nine reflux patients with DGER after ingestion of a standardized liquid meal together with 300 mL of water, white wine, and in the volunteers, beer and rose wine.

KEY RESULTS:

Bilitec measurement was found to be feasible in the presence of beer, white wine, and using a threshold of 0.25, rose wine. However, the presence of red wine resulted in extinction values above this threshold. The consumption of all investigated alcoholic beverages, especially of white wine, triggered increased acidic GER, both in healthy participants and patients with reflux disease. In contrast, no relevant DGER was found after intake of alcoholic beverages.

CONCLUSIONS & INFERENCES:

Fiber-optic bilirubin monitoring can be used for DGER monitoring in combination with alcoholic beverages, except with red wine. Low-proof alcoholic beverages are a strong trigger of GER, but not of DGER, both in healthy subjects and patients with reflux disease.

https://www.healthline.com/health/gerd/alcohol#takeaway5