Society of Medical Friends of Wine

SAN FRANCISCO, CALIFORNIA A Non Profit 501 C 3 Corporation www.medicalfriendsofwine.org

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As this edition of our newsletter is being prepared, much of the Northern California wine country is being threatened by devastating wildfires. Our Society has many members, colleagues, and friends in this area who are directly affected, and our concerns and thoughts are with them at this time.

One mission of our Society is education about the health-related effects of wine consumption, and this issue is focused on one such aspect. The issue of wine (and alcohol) and health is a complex, controversial, and often contradictory one. Thus it is not our intent to make specific recommendations on the subject, but rather to educate our members and readers about new publications in either the scientific or lay literature that capture attention and headlines. That way our professional members can be better prepared to enter into individual discussions with their patients, and our lay members can be better prepared to enter dialogue with their health-care providers.

Dr. Dan Bikle, Professor of Medicine at the University of California, offers his review and thoughts on one such publication that gathered recent headlines. Dan has taken on the responsibility of providing us with scientific editing for the Society. If you come across material that you find of potential importance and interest to our membership or that merits review in these pages, please draw them to Dr. Bikle's attention.

> Robert Blumberg, M.D. Editor and Cellar-master

The link between alcohol consumption and cancer: has it been understated?

A critique of the alcohol industry.

In a recent publication by Petticrew et al (Drug and Alcohol Review, 2017) entitled "How alcohol industry (AI) organizations mislead the public about alcohol and cancer," the authors make that claim that "the AI appears to be engaged in the extensive misrepresentations of evidence about the alcohol-related risk of cancer. These activities have parallels with those of the tobacco industry."

These are strong words. They accuse the AI of three strategies for misleading the public: 1) denial/omission by denying or omitting or disputing the evidence that alcohol consumption increases cancer risk; 2) distortion by mentioning cancer, but misrepresenting the risk; 3) distraction by focusing discussion away from the independent effects of alcohol on common cancers such as breast cancer and colorectal cancer.

The authors examined information put forward regarding alcohol and cancer by 21 Al bodies and organizations. These organizations are worldwide, and most are in the business of making alcoholic beverages. Six other organizations examined by the authors did not publish any information about alcohol and cancer. According to the authors, essentially all of the organizations that discussed the link between alcohol and cancer were selective in their reporting of cancer risk, with the implication that they omit the risks of greatest concern (e.g. link to breast and colorectal cancer). Few deny that alcohol is associated with at least

one cancer, but most link the risk to particular drinking patterns (e.g. heavy consumption over long periods of time) or confound the relationship with other risk factors such as smoking.

To gain a better perspective on the quality of data linking alcohol consumption to cancer risk, I examined the data compiled by the IARC <u>Working Group on the Evaluation of Carcinogenic Risks to Humans</u>: <u>personal habits and indoor combustions</u>, section on alcohol and cancer. [IARC Monographs, 2012, pp 373-499.] This is an extensive compilation of primarily epidemiologic studies examining the association between alcohol consumption and a wide variety of cancers. It is extensively referenced. My summary of their data is as follows. Overall, where examined, the type of alcohol consumed is immaterial. Red wine is not any better than white wine, and apparently wine is not better than beer or hard liquor. Alcohol is alcohol.

- 1. The risk of oral cancer, laryngeal cancer, and esophageal cancer increases with the amount of alcohol consumed, rising to 3-fold increased risk with 10 drinks/day. The risk for 1 drink/day (approx.10g EtOH) is about 20%. This risk goes up synergistically with smoking.
- 2. Colorectal cancer. Here the data are less consistent. Some of the largest studies have not shown an association, at least for colon cancer, but other studies have found an increased risk at consumption levels of 20-45g/day (2 to 4.5 drinks per day) with a relative risk at 45g/day of 1.4. The relationship to smoking is unclear.
- 3. Liver. The data are confounded by the increased risk due to hepatitis and cirrhosis. At very high levels of alcohol consumption (>60gm or 6 drinks/day) the risk of cancer was found to be increased in one large study.
- 4. Stomach. No clear association
- 5. Pancreas. Data are inconsistent. One pooled analysis showed a relative risk of 1.22 for >30g(3 drinks)/day, but a VA study indicated an inverse correlation (i.e. RR<1 suggesting alcohol might be protective), and other studies have shown no association.
- 6. Lung. The risk of smoking dominates these studies, with no clear additive effect of alcohol consumption, and some studies even show an inverse correlation.
- 7. Breast. The relationship between breast cancer and alcohol has been extensively examined. There appears to be a linear correlation between alcohol consumption and breast cancer in females, with approximately a 10% increase in risk for each 10g (1 drink) per day increase in daily consumption. This relationship holds true for both Estrogen Receptor-neg and Estrogen Receptor-pos tumors. It is not clear whether the risk is affected by duration of alcohol consumption or by smoking. The association with male breast cancer is not well established.
- 8. Cancers of the cervix, endometrium, ovary, prostate, kidney and lymphatic and hematopoietic system show either no association or an inverse association with alcohol consumption.

So, what are we to make of this? The association of alcohol consumption with oropharyngeal and laryngeal cancer is strong and clearly linked to smoking. Similarly, the association with breast cancer likewise appears to be well established. However, the link with colorectal cancer is not as solid, and other cancers discussed, including prostate cancer, do not seen to have an association with alcohol consumption and may even have a reduced risk. Is the critique by Petticrew et al. fair? Maybe. As a society of medical professionals dedicated to the education of the public regarding the health aspects of wine, we need to balance our message of the benefits with the potential risks of alcohol consumption. Perhaps the publication by Petticrew et al. reminds us of this obligation.

Respectfully submitted

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