

- 5 Haar RJ, Iapcopino V, Ranadive N, Dandu M, Weiser SD. Death, injury and disability from kinetic impact projectiles in crowd-control settings: a systematic review. *BMJ Open* 2017; 7: e018154.

UK FASHIoN—how clinically relevant are the results?

We have read with great interest the UK FASHIoN study by Damian Griffin and colleagues.¹ In this randomised controlled trial of 348 patients from 23 centres, the authors conclude that patients with femoroacetabular impingement syndrome have better hip-related quality of life at 12 months after hip arthroscopy than after conservative care.

The pragmatic approach, in which orthopaedic surgeons from various backgrounds could recruit and operate on patients, not only deserves appreciation, but serves as an example for future trials. However, because the minimum clinically important difference of 6.1 points on the iHOT-33 was exceeded by only 0.7 points, we felt that a close look at the trial's results was warranted.

The lower limit of the CI of the adjusted treatment effect (6.8 points; 95% CI 1.7–12.0) does not exceed the minimum clinically important difference of 6.1 points on the iHOT-33 used by the authors,¹ nor the minimum clinically important difference of 12.1 points described by Nwachukwu and colleagues.² This is also true for all the subanalyses (appendix). If this is the case, is it legitimate to conclude that there is a clinically significant difference?

We believe that the FASHIoN trial is extremely relevant in a field in which hardly any level 1 evidence exists so far. However, the conclusion of the FASHIoN trial might be better formulated by mentioning that there is a small effect of hip arthroscopy compared with conservative care in patients with femoroacetabular

impingement syndrome, but whether this effect is clinically significant remains an open question.

We declare no competing interests.

*Bart G Pijls, Marijn Rutgers
b.g.c.w.pijls@lumc.nl

Department of Orthopaedics, Haga Hospital, 2566 MJ The Hague, The Netherlands (BGP, MR); and Department of Orthopaedics, Leiden University Medical Center, Leiden, The Netherlands (BGP)

- 1 Griffin DR, Dickenson EJ, Wall PDH, et al. Hip arthroscopy versus best conservative care for the treatment of femoroacetabular impingement syndrome (UK FASHIoN): a multicentre randomised controlled trial. *Lancet* 2018; **391**: 2225–35.
- 2 Nwachukwu BU, Fields K, Chang B, Nawabi DH, Kelly BT, Ranawat AS. Preoperative outcome scores are predictive of achieving the minimal clinically important difference after arthroscopic treatment of femoroacetabular impingement. *Am J Sports Med* 2017; **45**: 612–19.

Alcohol consumption and vascular disease: other points to consider

Iona Millwood and colleagues¹ assessed the associations between cardiovascular risk and genotype-predicted mean alcohol intake in men and women in China. The results suggested that the apparently protective effects of moderate alcohol intake against stroke are largely non-causal.

Some problems with this study have caught our attention. First, the authors recorded alcohol use and other characteristics at baseline, but they did not obtain information about the changing patterns of alcohol consumption during follow-up, which should be considered. Second, this study followed participants for about 10 years, but population mobility has seen a substantial increase over this period, particularly in rural areas. Increased mobility could result in a certain percentage of missed visits. Third, the information from the 4781 missing participants should be removed because the information about their health is unclear.

Additionally, a study has reported an immediately higher cardiovascular risk following any alcohol consumption,² whereas another study showed that heterogeneous associations exist between the amount of alcohol consumed and the initial presentation of cardiovascular diseases.³ Nevertheless, Millwood and colleagues¹ study suggested that reductions in alcohol consumption should provide overall health benefits. Interpretation of their conclusion needs to be done with caution because of the above uncertainties.

We declare no competing interests.

Wen-Jun Tu, Shu-fang Zhong,
*Qiang Liu
liuqiang_cams@163.com

Institute of Radiation Medicine, China Academy of Medical Science and Peking Union Medical College, Tianjin 300192, China

- 1 Millwood IY, Walters RG, Mei XW, et al. Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China. *Lancet* 2019; **393**: 1831–42.
- 2 Mostofsky E, Chahal HS, Mukamal KJ, Rimm EB, Mittleman MA. Alcohol and immediate risk of cardiovascular events: a systematic review and dose-response meta-analysis. *Circulation* 2016; **133**: 979–87.
- 3 Bell S, Daskalopoulou M, Rapsomaniki E, et al. Association between clinically recorded alcohol consumption and initial presentation of 12 cardiovascular diseases: population-based cohort study using linked health records. *BMJ* 2017; **356**: j909.

As suggested by Iona Millwood and colleagues¹ in their Article, and by an accompanying Comment,² a better understanding is needed of how genetics will redefine the risks associated with alcohol consumption. Screening methods for alcohol-associated risk, such as AUDIT and AUDIT-C are dependent upon the number of standard drinks consumed, but they might not be the relevant tools to determine the risks associated with alcohol consumption globally.³ Because 8% of the global population have a genetic variant of ALDH2 rs671 (known as ALDH2*2), which causes an accumulation of acetaldehyde after alcohol consumption, guidelines taking into consideration this genetic



joel bubble/bett/Shutterstock

See Online for appendix

For AUDIT and AUDIT-C screening tests see <https://www.gov.uk/government/publications/alcohol-use-screening-tests>

variant could lay the groundwork for precision medicine strategies.

Furthermore, when developing recommendations, acknowledgment that additional environmental sources of acetaldehyde exposure exist, including acetaldehyde present in tobacco cigarettes, is important. Frequently, people use tobacco and alcohol together—as reported by Millwood and colleagues (61% of all men are smokers and 71% of current drinkers are smokers).¹ Smoking tobacco cigarettes while consuming alcohol transiently increases acetaldehyde concentrations in the saliva 6-times higher than the concentrations when consuming alcohol alone.⁴ In a small clinical study, genetic variations that cause acetaldehyde accumulation (rs671 and rs1229984) paired with lifestyle choices of drinking alcohol and smoking tobacco cigarettes identified a 189-times higher risk for developing oesophageal cancer.⁵ Because combining alcohol and tobacco use are known to result in a greater accumulation of acetaldehyde, determining whether the risk of cerebrovascular disease for people who smoke cigarettes and drink alcohol is increased relative to those who only consume alcohol is important.

Patents related to ALDH2 activation by DM-R and C-HC are licensed to Foresee Pharmaceuticals. ERG is supported by a grant from the National Institute of Health, NHLBI HL144388. JCBF declares no competing interests.



Che-Hong Chen, Julio C B Ferreira, Daria Mochly-Rosen, *Eric R Gross
ergross@stanford.edu

Department of Chemical and Systems Biology (C-HC, DM-R); Department of Anesthesiology, Perioperative and Pain Medicine (ERG), School of Medicine, Stanford University, Stanford, CA 94305, USA; and Department of Anatomy, Institute of Biomedical Sciences, University of São Paulo, Brazil (JCBF)

- 1 Millwood IY, Walters RG, Mei XW, et al. Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China. *Lancet* 2019; **393**: 1831–42.
- 2 Yeung SL, Lam TH. Unite for a framework convention for alcohol control. *Lancet* 2019; **393**: 1778–79.
- 3 Heymann HM, Gardner AM, Gross ER. Aldehyde-induced DNA and protein adducts as biomarker tools for alcohol use disorder. *Trends Mol Med* 2018; **24**: 144–55.

- 4 Salaspuro V, Salaspuro M. Synergistic effect of alcohol drinking and smoking on in vivo concentration of acetaldehyde in saliva. *Int J Cancer* 2004; **111**: 480–83.
- 5 Cui R, Kamatani Y, Takahashi A, et al. Functional variants in *ADH1B* and *ALDH2* coupled with alcohol and smoking synergistically enhance esophageal cancer risk. *Gastroenterology* 2009; **137**: 1768.

Authors' reply

We thank Qiang Liu and colleagues and Eric Gross and colleagues for their comments on our Article.¹

Liu and colleagues raised queries about changing patterns of alcohol consumption during the follow-up period and the handling of participants who were lost to follow-up. As described in the Article,¹ we asked again about alcohol intake in subsets of about 5% of participants in two resurveys approximately 3 years and 8 years after the median baseline survey year. As described in the appendix,¹ these repeat measures were used to estimate the participants' usual alcohol intake over the study period, to account for regression dilution bias in the associations assessed. Fewer than 1% of participants were considered lost to follow-up during the study period.¹ These participants' data were censored at the point at which they were lost.¹

Gross and colleagues suggest a need to consider the *ALDH2* rs671 variant genotype, which is present in about 35–40% of east Asians, as well as cigarette smoking, when developing guidelines for alcohol use, given that both these factors can increase acetaldehyde exposure in certain tissues following alcohol use, which might affect cancer risk because acetaldehyde can damage chromosomes.^{2,3} The pathological mechanisms by which alcohol can affect disease incidence might vary for stroke and myocardial infarction and particular types of cancer, but it is not yet clear how much they affect overall risk. However, they might mean that different diseases should be considered separately, as in our report, when interpreting mendelian randomisation studies of potentially causal effects.¹

IYM, RGW, RP, and ZC report grants from the Hong Kong Kadoorie Charitable Foundation, Wellcome Trust, UK Medical Research Council, GlaxoSmithKline, the British Heart Foundation, and Cancer Research UK, during the conduct of the study. LL declares no competing interests.

*Iona Y Millwood, Robin G Walters, Liming Li, Richard Peto, Zhengming Chen
iona.millwood@ndph.ox.ac.uk

Medical Research Council Population Health Research Unit (IYM, RGW) and Clinical Trial Service Unit and Epidemiological Studies Unit (IYM, RGW, RP, ZC), Nuffield Department of Population Health, University of Oxford, Oxford OX3 7LF, UK; and Department of Epidemiology and Biostatistics, Peking University Health Science Center, Peking University, Beijing, China (LL)

- 1 Millwood IY, Walters RG, Mei XW, et al. Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China. *Lancet* 2019; **393**: 1831–42.
- 2 Yu C, Guo Y, Bian Z, et al. Association of low activity *ALDH2* and alcohol consumption with risk of esophageal cancer in Chinese adults: a population-based cohort study. *Int J Cancer* 2018; **143**: 1652–61.
- 3 Garraycochea JI, Crossan GP, Langevin F, et al. Alcohol and endogenous aldehydes damage chromosomes and mutate stem cells. *Nature* 2018; **553**: 171–77.

Department of Error

Bachert C, Han JK, Desrosiers M, et al. Efficacy and safety of dupilumab in patients with severe chronic rhinosinusitis with nasal polyps (*LIBERTY NP SINUS-24* and *LIBERTY NP SINUS-52*): results from two multicentre, randomised, double-blind, placebo-controlled, parallel-group phase 3 trials. *Lancet* 2019; **394**: 1638–50—In this Article, in Procedures, the correct dose of mometasone furoate is 100 µg. This correction has been made to the online version as of Sept 26, 2019, and the printed version is correct.

Waksman R, Di Mario C, Torguson R, et al. Identification of patients and plaques vulnerable to future coronary events with near-infrared spectroscopy intravascular ultrasound imaging: a prospective, cohort study. *Lancet* 2019; **394**: 1629–37—The appendix of this Article has been corrected as of Oct 7, 2019.

Published Online
September 26, 2019

[https://doi.org/10.1016/S0140-6736\(19\)32218-4](https://doi.org/10.1016/S0140-6736(19)32218-4)



Published Online
October 7, 2019

[https://doi.org/10.1016/S0140-6736\(19\)32276-7](https://doi.org/10.1016/S0140-6736(19)32276-7)