COMMENT ON McINTYRE

Diagnosing Gestational Diabetes Mellitus: Rationed or Rationally Related to Risk? Diabetes Care 2013;36:2879–2880

Diabetes Care 2014;37:e81 | DOI: 10.2337/dc13-2498

Edmond A. Ryan

Dr. McIntyre eloquently challenges the National Institutes of Health (NIH) consensus panel conclusions that contradict the American Diabetes Association (ADA) position on the diagnosis of gestational diabetes mellitus (GDM) (1). His claims merit comment.

He feels it is "most disturbing" that the panel did not address the issue of "undiagnosed type 2 diabetes." While we agree that detecting overt type 2 diabetes early in pregnancy is important, this was not the specific question the NIH panel was charged to answer. McIntyre feels we should embrace change, but "change" and "change for the better" are not synonymous. After a rigorous review, the panel concluded that there was not enough evidence to support the change in diagnostic criteria for GDM that the ADA supports (2).

The author claims that "the original studies of O'Sullivan involved uniform one-step administration of a 100-g oral glucose tolerance test (OGTT)," (3) but O'Sullivan specifically states in his reference 11 that all participants were prescreened, the most common screen being a positive 50-g glucose challenge test (GCT), a two-step process.
Dr. McIntyre questions the two-step process being less burdensome, given 23% of GCT-screened positive women need a follow-up 3-h OGTT. If 1,000 pregnant women all have a 2-h OGTT, they will undergo a total of 3,000 glucose measurements and spend 2,000 h in the laboratory; a two-step process with 23% having a 3-h OGTT involves 1,920 glucose tests taking 1,690 h and the numbers are more compelling using the Canadian preferred approach to diagnosing GDM (1,669 tests and 1,446 h) (4). While quoting van Leeuwen's systematic review of the GCT (5), McIntyre points out that some cases will be missed but does not give the review's conclusion: "The 50-g glucose challenge test is acceptable to screen for GDM." In a high-risk situation, there is nothing stopping the caregiver from repeating the test or performing an OGTT.

McIntyre (1) refers to 11 studies of women with one abnormal value on an OGTT (OAV), implying that it is irrational to insist on two abnormal values on the OGTT. He neglects to say that in all 11 studies (his references 11–21) the participants were prescreened before the OGTT and in all but two of these studies (his references 14,15) the screen was a GCT. Thus 93% of women in these studies of OAV had an abnormality in glucose tolerance demonstrated on two occasions, on the GCT and the OGTT, something that I and others have argued for if one accepts a single value on the OGTT as sufficient to call GDM (6).

Finally, before any specific interest group labels nearly a fifth of the pregnant population as having a disease this group should provide solid evidence that this labeling is worthwhile and that treatment is beneficial. The independent NIH panel concluded "that there is not sufficient evidence to adopt a one-step approach" (2). A disinterested observer would reach the same answer and until that evidence is there, the simple belief that the ADA criteria are best does not make them so.

Duality of Interest. No potential conflicts of interest relevant to this article were reported.

References

1. McIntyre HD. Diagnosing gestational diabetes mellitus: rationed or rationally related to risk? Diabetes Care 2013;36:2879–2880
2. Vandorsten JP, Dodson WC, Espeland MA, et al. NIH consensus development conference: diagnosing gestational diabetes mellitus. NIH Consens State Sci Statements 2013;29:1–31
3. O'Sullivan JB, Mahan CM. Criteria for the oral glucose tolerance test in pregnancy. Diabetes 1964;13:278–285
4. Thompson D, Berger H, Feig D, et al. Clinical practice guidelines for the prevention and management of diabetes in Canada: diabetes and pregnancy. Can J Diab 2013;37: S168–S183
5. van Leeuwen M, Louwerse MD, Opmeer BC, et al. Glucose challenge test for detecting gestational diabetes mellitus: a systematic review. BJOG 2012;119:393–401
6. Ryan EA. Clinical diagnosis of gestational diabetes. Clin Obstet Gynecol 2013;56:774–787

Divisions of Endocrinology and Metabolism, Heritage Medical Research Centre, Alberta Diabetes Institute, University of Alberta, Edmonton, Canada
Corresponding author: Edmond A. Ryan, edmond.ryan@ualberta.ca.