

## Latent autoimmune diabetes in adults

### Are you aware of latent autoimmune diabetes in adults (LADA)?

LADA is a slowly progressive form of autoimmune diabetes that is neither type 1 nor type 2 but is considered to be somewhere in between the two. Indeed it is sometimes referred to as type 1.5. It is characterised by being diagnosed in adulthood, the lack of a requirement for insulin at diagnosis and the presence of diabetes-associated autoantibodies (DAAs). There appear to be, however, no commonly accepted diagnostic criteria. There is also debate as to whether or not LADA represents a distinct disease or it is part of a diabetic continuum with childhood-onset type 1 disease at one end and type 2 at the other.

Figures from the UK prospective diabetes study (UKPDS)<sup>1</sup> suggest that 10% of all patients with Type 2 diabetes in fact have LADA.

This makes it difficult to divide these three types of diabetics into precise groups, especially as the diagnosis of type 1 diabetes is as common in adults as in children. With obesity in children becoming increasingly common, type 2 diabetes (and LADA too) is being increasingly diagnosed at younger ages. These individuals are often asymptomatic and are usually treated by oral hypoglycaemic agents. Initially DAAs were thought to be uncommon in these patients but recent studies report frequencies from 30% to 75%.

LADA and type 2 diabetes are often clinically indistinguishable from one another. In both conditions there is beta cell dysfunction that results in insulin deficiency, but in LADA an autoimmune defect is responsible. The course of LADA differs from that of type 2 diabetes so, ideally, apparent type 2 patients should undergo antibody testing... but this presents difficulties due to the large numbers involved.

With this in mind researchers have tried to identify clinical clues to help identify LADA. While those in this group tend to have lower BMIs, lower mean waist and hip circumference, and more frequently symptoms of polyuria and polydipsia, these criteria are not very helpful in identifying individual patients. One study<sup>2</sup> suggests that the majority of patients with LADA have at least two of the following five clinical factors:

- Age at onset <50
- Acute symptoms before diagnosis (polyuria, polydipsia, or unintended weight loss)
- BMI <25
- Personal history of autoimmune disease
- Family history of autoimmune disease.

Those with LADA appear to lose more rapidly their ability to produce insulin than those with type 2 diabetes, and so it would be beneficial to start insulin therapy soon after diagnosis. This would give better glycaemic control and prevent the onset of diabetic complications.

Studies<sup>3,4</sup> show that a large percentage of LADA patients require insulin within the first few years of diagnosis. Some<sup>5</sup> suggest a more aggressive disease course for these patients and that, in the interests of better disease management, it is important to regard them as being distinct from those with type 2 diabetes.

This creates rather a dilemma. Most underwriting manuals make a distinction in their approach to rating type 1 or type 2 diabetics, with the latter generally attracting a lower rating. However, for some time it has been suggested that there should be no difference in the ratings. Yet it seems that LADA has a different course – and likely different mortality/morbidity implications – from type 2. Should there be three basic

rating schedules for diabetes? Or is that approach spuriously detailed, and is it better on the grounds of both 2 practicality and fair rating to have one basic schedule covering type 1, LADA and type 2, with appropriate adjustment for significant prognostic factors?

#### References

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September 2010