Diabetes

Depression not associated with poor glycaemic control in new diabetes cases

Neither depression nor diabetes distress appear to be related to glycaemic control in newly diagnosed patients with type 2 diabetes, the results of a UK prospective cohort study suggest. However, depressive symptoms at diabetes diagnosis were associated with a higher risk of macrovascular complications, notably myocardial infarction (MI) at two years' follow-up.

The South London Diabetes study was set in the inner city boroughs of Lambeth, Southwark and Lewisham. General practices were invited to recruit patients, aged 18-75 years, within six months of a diagnosis of diabetes and the patients were followed up for two years.

Patients were screened for depression using the PHQ-9 questionnaire. Diabetes distress was also assessed using the Problem Areas in Diabetes (PAID) scale. This tool distinguishes diabetes associated distress from depression by addressing the burdens, worries and fears specific to patients with diabetes. It shows moderate to strong associations with depression scores. Diabetes distress may be more specifically related to barriers to good diabetes self-care and is potentially modifiable with psychological therapy.

Data were available for 1,651 adults at baseline, mean age 56.2 years. Just over half (55.1%) were men, and 49.1% were of non-white ethnicity. At the outset of the study 232 (14.1%) had depressive symptoms and 111 (6.7%) patients scored positive for diabetes distress. Of those patients with depressive symptoms at baseline, 59 (25.4%) had comorbid diabetes distress and of those with diabetes distress 59 (53.2%) had comorbid depressive symptoms.

The primary outcome measure was HbA_{1c} after two years. Secondary outcomes were incidence of microvascular and macrovascular complications.

Neither depression nor diabetes distress were associated with an elevated HbA_{1c} at follow-up after adjustment for confounders.

However, an association between depression and macrovascular complications, principally MI, was found: OR 2.78 (95% CI: 1.19-6.49). The number of events was low, but the association was consistent.

'While this may reflect pre-existing vulnerability to cardiovascular disease, it could be that depression is also a proxy marker for future cardiovascular risk,' the study authors say.

No association was found between depression and microvascular complications. Diabetes distress did not show any association with microvascular or macrovascular complications.

Depression and diabetes distress increase with duration of diabetes, so studying patients shortly after diagnosis reduced this confounding variable. The authors suggest that the study may have lacked power because of the low prevalence of diabetes distress, and the relatively short follow-up.

The results are surprising because it is well known that diabetes, like all chronic conditions, is associated with a higher prevalence of depression, and depression is associated with a higher incidence of adverse outcomes.

The study authors conclude: 'Neither depressive symptoms nor diabetes distress is associated with worsening glycaemic control over two years.

'Conversely, depressive symptoms are independently associated with increased risk of incident macrovascular disease in the first two years of type 2 diabetes. As the overall number of events was low, longer term prospective studies and intervention studies are now needed to test whether depressive symptoms at diagnosis of type 2 diabetes are a modifiable target.'

I feel that this study supports the treatment of coincident depression at the diagnosis of diabetes. It does not support referring patients for psychotherapy for diabetes distress. All patients should be offered in-house education and support, dietitian review and DESMOND courses at diagnosis.

DR MATTHEW LOCKYER

Ismail K, Moulton CD, Winkley K et al. The association of depressive symptoms and diabetes distress with glycaemic control and diabetes complications over 2 years in newly diagnosed type 2 diabetes: a prospective cohort study. *Diabetologia* 2017;60:2092-2102

Addiction

Mortality risk raised during induction with methadone in opioid substitution therapy

Patients undergoing opioid substitution treatment have an increased mortality risk during the induction phase with methadone but not with buprenorphine, a meta-analysis has found. Mortality risk is also raised in the period immediately after leaving treatment with both drugs.

The investigators searched Medline, Embase, PsychINFO and LILACS and identified 19 cohort studies eligible for analysis. The studies were published between 1974 and 2016 and were carried out in high-income countries mainly in Europe, North America and Australia. Methadone was prescribed in 18 of the studies and buprenorphine in three. Standard exclusion criteria such as patients in prison or recently released were applied.

Overall 122,885 patients treated with »

methadone were followed up over 1.3-13.9 years and 15,831 treated with buprenorphine over 1.1-4.5 years. More than 70% of the participants were men

The pooled all cause mortality rates were 11.3 deaths per 1,000 person-years for those in methadone treatment and 36.1 per 1,000 person-years for those not in treatment, unadjusted out to in rate ratio (RR) 3.20 (95% CI: 2.65-3.86). Equivalent mortality rates for patients in or out of buprenorphine treatment were significantly lower at 4.3 and 9.5 deaths per 1,000 person-years respectively, RR 2.20 (95% CI: 1.34-3.61).

Six methadone cohorts provided all cause mortality data analysed by time interval in and out of treatment. After exclusion of specific, very high-risk patients, the pooled all cause mortality rates were 11.4 and 5.8 deaths per 1,000 person-years during the first four weeks and during the remaining time on methadone treatment respectively. The pooled all cause mortality rate in these cohorts was high in the first four weeks after stopping methadone treatment at 32.1 deaths per 1,000 person-years, but dropped to 13.5 deaths per 1,000 person-years after four weeks.

In the two buprenorphine cohorts reporting data by time in treatment, the pooled all cause mortality was low at 4.5 deaths per 1,000 person-years both during and after the first four weeks of buprenorphine treatment.

The pooled all cause mortality was 32.0 deaths per 1,000 person-years in the first four weeks after stopping buprenorphine treatment, reducing to 10.9 deaths per 1,000 person-years after four weeks.

The findings suggest that opioid substitution treatment with methadone is associated with an average reduction of 25 deaths per 1,000 person-years (95% CI: 14-36). The mortality rate in treatment was less than a third of the rate out of treatment, with the greatest reduction in deaths being from overdose.

The all cause mortality risk during treatment is higher in the first four weeks than in ongoing treatment. Mortality risk is significantly higher in the first four weeks after cessation of treatment than in longer-term out of treatment status.

The study also suggests that treatment with buprenorphine is associated with a reduction in mortality, but unlike methadone there is no increase in risk during the first four weeks in treatment. There is an increased mortality rate in the first four weeks after stopping treatment.

Previous studies of drug users in treatment have not been powerful enough to detect potential differences in mortality between the two drugs, or at different points of a treatment journey.

The authors conclude that retention in opioid substitution treatment with both methadone and buprenorphine is associated with a substantial reduction in the risk for all cause and overdose mortality in opioid dependence.

The induction phase on to methadone treatment and the time immediately after leaving treatment with both drugs are periods of increased mortality risk.

Awareness of the particular stages in treatment journeys that are associated with excess risks can help clinicians to devise strategies for safe opioid substitution treatment dose induction, and treatment and public health services to provide harm minimisation support for those who have recently left treatment.

DR JEZ THOMPSON

Sordo L, Barrio G, Bravo MJ et al. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *BMJ* 2017;357:j1550

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Sexual health

Dyspareunia in women associated with physical and mental health conditions

The third National Survey of Sexual Attitudes and Lifestyles in Britain (Natsal-3) has found a strong association between women reporting painful sex and poor physical health and depressive symptoms.

Data were collected over a two-year period from 8,869 women aged 16-74 years. Of these 1,505 women had not been sexually active in the preceding 12 months.

Interviews were conducted in the woman's own home. Current and recently sexually active women were asked whether they had experienced any of eight specific sexual problems for at least three or six months during the past year: lack of interest in sex, lack of enjoyment, anxiety during sex, physical pain caused by sex, no excitement or arousal, failure or slowness to reach climax, climaxing too quickly, an uncomfortably dry vagina.

Morbid pain was defined as dyspareunia for six or more months, frequent symptoms, and feeling distressed about the difficulty. Dyspareunia was reported by 7.5% (95% CI: 6.7-8.3%) of all sexually active women for at least three of the previous 12 months, and 4.6% (95% CI: 4.1-5.3%) for at least six months.

The proportion of women who had pain during sex for six months or more and distress was 2.5% (95% CI: 2.1-3.0%) and for morbid pain 1.9% (95% CI: 1.5-2.3%) respectively. »