PRESS RELEASE

Delayed womb repair may be responsible for heavy periods

Women may suffer from heavy menstrual bleeding because their womb lining repairs slowly, according to research presented today at the Society for Endocrinology annual BES conference. By identifying the processes involved, this research may provide a new therapeutic target for more effective treatments for the condition.

Heavy menstruation affects 1 in 3 women and can have a major impact on their lives. In some cases, women bleed so heavily they require a blood transfusion and major surgery. The cause of heavy menstruation is as yet poorly understood.

In this study, researchers from the University of Edinburgh collected 44 endometrial biopsies from women with no structural womb abnormalities. Women who bled more than 80ml in one period were classified as heavy menstrual bleeders. On average, they found that heavy menstrual bleeders bled an average of six days compared to four days for women with normal periods, indicating that heavy menstrual bleeding is a result of delayed womb repair.

The group then looked at the role of genes within the TGF-β family – a group known to play a fundamental role in normal cell growth and tissue repair. They found that heavily menstruating women had lower levels of the molecules associated with these TGF-β genes. In women who bleed normally, levels of these molecules were increased during menstruation, indicating a role for TGF-β in repair of the womb lining.

Dr Jacqueline Maybin, who led the study said, “Heavy periods are very common and massively debilitating for the women that have them. Our results are exciting as it helps us to understand what goes wrong at the cell and molecular level in the womb lining.”

The group is now planning to look at other factors within the TGF-β family and their levels in womb lining. “We want to examine and understand how these factors impact on blood vessel function and growth in the womb lining. Ultimately, we want to develop novel treatments that are more effective and have fewer side effects than those currently available,” said Dr Maybin.

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Notes for editors

1. For further information about the study please contact the authors of the study:

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2. The study *Transforming Growth Factor-β superfamily signalling and its role in the pathogenesis of heavy menstrual bleeding* will be presented by Dr Jacqueline Maybin *et al.* at the Society for Endocrinology's annual BES conference at 13:00 on Tuesday 25 March 2014.

3. For press enquiries, or copies of the abstract, please contact the Society for Endocrinology press office:

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4. The Society for Endocrinology's annual BES conference is held at the ACC Liverpool from 24 - 27 March 2014. BES features some of the world's leading basic and clinical endocrinologists who present their work. Journalists wishing to attend should contact Omar Jamshed at the Society for Endocrinology press office.

5. The Society for Endocrinology is a UK-based membership organisation representing a global community of scientists, clinicians and nurses who work with hormones. Together we aim to improve public health by advancing endocrine education and research, and engaging wider audiences with the science of hormones www.endocrinology.org