



Asian Journal of Epidemiology

ISSN 1992-1462

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Child/Teen Sexual and Physical Abuse Linked to Fibroids in Premenopausal Women

Researchers from Boston University School of Medicine (BUSM) have found that both physical and sexual abuse history were positively associated with a higher incidence of uterine fibroids later in life. These findings currently appear on-line in the journal Epidemiology.

Uterine leiomyomas, also known as fibroids or myomas, are benign, hormone-dependent tumors that are clinically symptomatic in 20-25 percent of reproductive age women. Fibroids contribute to a third of hysterectomies in the US, increase risk of infertility, spontaneous abortion and pelvic pain and have a significant impact on the quality of life for women. Despite being the most common pelvic neoplasm in women of reproductive age, the etiology of myomas is poorly understood. A growing body of evidence indicates an association between early life social adversities and adult health. Physical, sexual and emotional abuse in childhood has been associated with increased mortality and morbidity in adulthood, and poor health behaviors.

Participants in this study included 68,505 premenopausal US nurses, enrolled in the Nurses' Health Study II. Sixty-five percent of these women reported physical or sexual abuse as a child or teen.

The researchers discovered 9,823 incident diagnoses of ultrasound- or hysterectomy confirmed uterine leiomyomas. A dose-response association between cumulative abuse and fibroid risk was found. Risk for fibroids increased from eight to 36 percent among those with the mildest to most severe cumulative abuse in childhood.

"Our analyses showed that exposure to physical, sexual or emotional abuse in childhood and adolescence was associated with an increased risk for clinically symptomatic fibroid tumors in adulthood. The impact of early life adversity on fibroid risk persisted even among those with no future

violence exposure in adulthood," said lead author Renee Boynton Jarrett, MD, ScD, an Assistant Professor of Pediatrics at BUSM.

In addition, the researchers found having a consistent (very often or always) emotionally supportive relationship in childhood was protective when included as a covariate in the multivariate model of cumulative violence predicting leiomyoma.

According to Boynton-Jarrett, early life exposure to violence may underpin biologic and behavioral patterns that affect fibroid risk in adulthood. "Childhood abuse may have long-lasting consequences that jeopardize health and well-being not only in childhood, but adulthood as well. We also found that emotionally supportive relationships are protective and in part buffer the negative effects of abuse on fibroid risk in adulthood. Taken together, these findings support the need for future research investigating both the health outcomes associated with child abuse, as well as the factors that may enhance biological resiliency in the face of adversity."

Funding for this study was provided by the William T. Grant Foundation and the Building Interdisciplinary Research Careers in Women.

Boynton-Jarrett, Renée; Rich-Edwards, Janet W.; Jun, Hee-Jin; Hibert, Eileen N.; Wright, Rosalind J. Abuse in Childhood and Risk of Uterine Leiomyoma: The Role of Emotional Support in Biologic Resilience. *Epidemiology*, 9 November 2010 DOI: 10.1097/EDE.0b013e3181ffb172