

Types of ovarian activity in women and their significance: the continuum (a reinterpretation of early findings)

James B Brown (published posthumously)

Abstract

BACKGROUND There are many types of ovarian activity that occur in women. This review provides information on the relationship between the hormone values and the degree of biological response to the hormones including the frequency and degree of uterine bleeding. The continuous process is termed the 'Continuum' and is thus similar to other processes in the body.

METHODS This review draws on information already published from monitoring ovarian activity by urinary oestrogen and pregnanediol measurements using timed 24-h specimens of urine. Much of the rationalization was derived from 5 to 6 year studies of girls progressing from childhood to adulthood, women progressing through menopause, and the return of fertility post-partum. During these times, all the reported types of ovarian activity were encountered.

RESULTS All cycle types can be understood in terms of steps in the normal maturation of fertility at the beginning of reproductive life, its return post-partum and its demise at menopause. Each step merges into the next and therefore the sequence is termed the 'Continuum'. Unpredictable movement from fertile to infertile types and back can occur at any time during reproductive life. Stress is a major causative factor. Hormonal definitions for each step, the relevance of the various cycle types in determining fertility and in the initiation of uterine bleeding and the roles of the pituitary hormones in causing them, are presented.

CONCLUSIONS The findings explain the erratic fertility of women and why ovulation is not always associated with fertility. They provide an understanding of the various types of ovarian activity and their relation to pituitary function, fertility and uterine bleeding.

For the full article:

<http://humupd.oxfordjournals.org/content/early/2010/10/05/humupd.dmq040.full>