The viscoelastic properties of the cervical mucus plug

The objective of this study was to characterize the viscoelastic properties of cervical mucus plugs (CMPs) shed during labor at term. Spontaneously shed cervical mucus plugs from healthy women in active labor were tested. The viscoelastic properties of cervical mucus plugs were investigated with using frequency and stress sweep experiments within the linear viscoelastic region. Random-effects regression was used for statistical analysis. The CMPs are solid-like viscoelastic structures and the elastic modulus dominated the viscous modulus at all frequencies. These rheological characteristics are probably essential for the CMP's ability to form and sustain a plug in the cervical canal during pregnancy, thereby reducing the risk of ascending infections.