

Diagnosis and treatment of pelvic floor trauma following spontaneous vaginal delivery- a tailored approach

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The miracle of childbirth is often clouded by the adverse effects on the soft tissue of the pelvic floor induced by passage of the fetus through the birth canal, which can ultimately have a significant impact on the quality of life of women. The aim of this presentation is provide an illustration of the origins and consequences of maternal pelvic floor trauma on the structure and function of the urogenital system and to present a complex realistic approach to surgical management of pelvic floor defects. An MRI derived 3-D model of the female pelvis with high-resolution images demonstrating key anatomical structures as are visualized during surgery will be utilized. The etiology of pelvic floor trauma during childbirth will be discussed and the biophysical principles underlying the mechanical strain and load on the soft tissues with passage of the fetal head during vaginal delivery will be addressed. The operative method will be illustrated through a series of photo slides detailing intraoperative technique, identification and utilization of native tissue structures (fascia), suture placement and material as well as a general appreciation for the interconnectedness (tissue mapping) of the pelvic floor muscles, fascia, and paravaginal tissues in the anatomical restoration of the vaginal axis, length, and overall physiological function Lastly, the important role of postoperative physiotherapy and education of women in regaining pelvic floor function should not be underestimated and used concurrently with surgery to insure successful patient outcomes.

Genotyping-by-sequencing has provided closely linked flanking markers that are now available to Australian breeders through the Australian Wheat and Barley Program to implement marker-assisted selection. Further fine mapping using large segregating populations will allow map-based cloning approaches to identify candidate genes underlying these QTL for RLN resistance. Studies on the inheritance of *P. thornei* resistance in wheat have revealed polygenetic and additive gene action. Superior resistance has been identified from a wide range of backgrounds, including landrace and synthetic hexaploid wheats (ABD genomes), and wild diploid (D and A genomes) and tetraploid (AB genomes) genome donors. Effective sources of dual resistance to *P. thornei* and *P. neglectus* have been identified in synthetic hexaploid wheat

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