The Rise and Fall of Surgery for Pelvic Organ Prolapse and Stress Incontinence in Australia Since 1993

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Introduction

Pelvic organ prolapse is an important issue in women's health. Risk factors and protective factors for the development of both stress incontinence and pelvic organ prolapse are evolving. For example, factors associated with an increased rate of both stress incontinence and prolapse are increasing, like obesity and an aging population. Conversely there has been a decrease in the number of vaginal births per women, an increase in caesarean section rate and greater emphasis on non operative treatment.[1] All of which would reduce the prevalence of these conditions. The effect of the controversy around surgical management of these condition and the senate inquiry in Australia in 2018 may also be a factor in the change in the rate of operative management over time.

Nonsurgical treatment options are recommended as first line treatment for both conditions.[2,3]

We sought to identify the long-term trends in the uptake of surgery for these conditions in Australian women between 1993 and 2017.

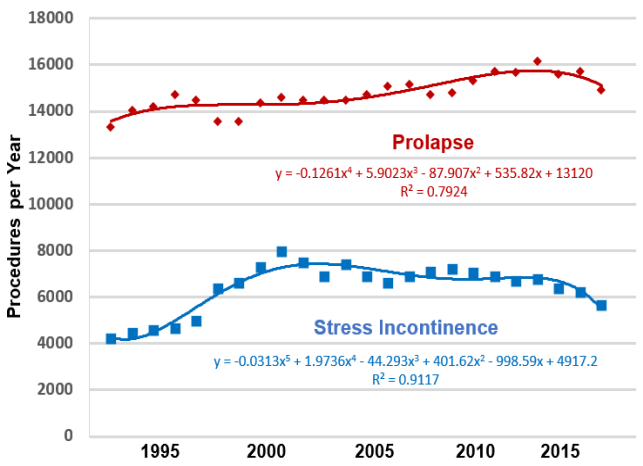

Figure 1
Total volume of hospital admissions for surgical procedures for prolapse (◆) and stress incontinence (■) in Australia for women aged 40 to 70 years inclusive for the period 1993 to 2017.

Methods

Separations for prolapse and incontinence surgery in women aged 40 to 70 years, inclusive, were obtained from the AIHW for the period 1993-4 to 2016-17. Annual point estimates for the total female population in this age group were obtained from the Australian Bureau of Statistics (ABS). Regressions were performed to calculate both R and adjusted R^2 (aR^2) statistics and *p*-values.

Results

Prolapse surgery.

There was a significant increase in the number of operations for prolapse each year, from 13328 in 1993-4 to a maximum of 16147 in 2013-14 (aR^2=0.69, p<0.005). However, the rate of prolapse operations (admissions per 10000 women) fell significantly, from 52.6 to 34.7 over the study period (aR^2=0.93, p<0.005).

Incontinence surgery.

From 1993 until 2002 the total number of procedures increased from 4197 to 7976 (aR^2=0.87, p<0.005). Procedure numbers subsequently fell to 5666 in 2016-17 (aR^2=0.62, p<0.005). Similarly, the rate increased from 16.6 women to 25.9/10000 women in 2001-02 (aR^2=0.93, p<0.005) then fell to 13.2/10000 by the final year (aR^2=0.90, p<0.005).

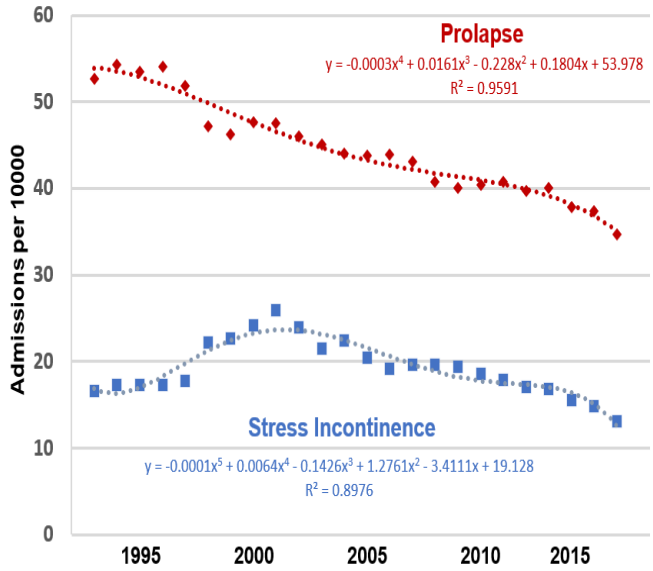

Figure 2
Incidence rate of hospital admission for surgical procedures for prolapse (◆) and stress incontinence (■) in Australia for women aged 40 to 70 years inclusive (procedures per 10000 women) for the period 1993 to 2017.

Conclusion

Whilst alternative treatment options are important their currently remains a requirement for operative measures in the management of stress incontinence and pelvic organ prolapse. Hospital separations for prolapse surgery increased over the 25-year time period studied. The rate of operations per woman has fallen steadily. For stress incontinence both the total number of procedures, and the incidence rate peaked in 2001-2, and have declined significantly since then. Factors associated with this change in rate over time are worthy of ongoing study.

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