

Erratum in:

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**Tissue engineering a complete vaginal replacement from a small biopsy of autologous tissue.**

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**BACKGROUND:** In women, a healthy, patent vagina is important for the maintenance of a good quality of life. Apart from congenital abnormalities, such as cloacal exstrophy, intersex disorders, and an absence of the posterior two thirds of the organ, individuals may also suffer from cancer, trauma, infection, inflammation, or iatrogenic injuries leading to tissue damage and loss -- all of which require vaginal repair or replacement. Of necessity, reconstruction is often performed with nonvaginal tissue substitutes, such as segments of large intestine or skin, which are not anatomically or functionally ideal (Hendren and Atala, *J Urol* 1994; 152: 752; Hendren and Atala, *J Pediatr Surg* 1995; 30: 91). Whenever such tissue is used additional complications often ensue, such as strictures, infection, hair growth, graft shrinkage, diverticuli, and even malignancy (Filipas et al., *BJU Int* 2000; 85: 715; Lai and Chang, *Changgeng Yi Xue Za Zhi* 1999; 22: 253; Parsons et al., *J Pediatr Surg* 2002; 37: 629; Seccia et al., *Ann Plast Surg* 2002; 49: 379; Filipas, *Curr Opin Urol* 2001; 11: 267). **METHODS:** Using a rabbit model, we report here the construction of a functional vagina using autologous cells expanded from a small vaginal biopsy. **RESULTS:** Six months after total vaginal replacement, radiographic analysis of rabbits implanted with the neovagina demonstrated wide, patent vaginal calibers without strictures. Histologic analysis revealed well-organized epithelial and muscle cell layers. Physiologic studies showed normal-range responses to electrical stimulation or to an adrenergic agonist. **CONCLUSIONS:** These data indicate that a tissue engineering approach to clinical vaginal reconstruction in women is now a realistic possibility.