

## Acacia Nilotica: New Plant for Help in Pelvic Organ Prolapse

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While menopause is an usual process of aged in women, it is a critical period of women's life related with many problem and complaints.<sup>1,2</sup> Pelvic prolapse is common in postmenopausal women, which is defined as the loss of maintenance to the pelvic organs, and it causes in a herniation of these into the vaginal canal. This problem distresses 50% of parous women and at least 50% of all women progress a mild form of genital prolapse after pregnancy.<sup>3</sup> The prevalence of pelvic prolapse and prolapse surgical procedure increases with aging. Women older than 80 years are the wildest increasing part of the people. Primary vaginal cancer associated with pelvic organ prolapse (POP).<sup>4</sup> POP is the most common, causing of hysterectomy among the postmenopausal women. More than 338,000 inpatient surgical procedures for POP are performed each year.<sup>5</sup> Uterine prolapse is one type of POP that still remains a subject of main health anxiety affecting a large population of women in both low and high income countries. At least 50% of parous women have some grade of genital prolapse for quite a long period. Effective correction of anterior vaginal prolapse remains one of the most challenging aspects of POP treatment. Up to 70% have recurring prolapse afterward anterior colporrhaphy. Acacia is a genus of Fabaceae. This genus has about 20 species in the world that Acacia Nilotica is one species of the genus Acacia. Acacia Nilotica is one of around 130 African Acacia species.

This plant is commonly recognized as a single, extremely variable species and divided into nine subspecies. Acacia Nilotica is a standard sized tree and is generally grown in tropical and subtropical area. Dissimilar species of this plant grow in Asia, Australia, Africa and America. Other names of Acacia Nilotica is "Kikar", "Acacia Arabica", "Babhul" and "Babool".<sup>6</sup> Acacia Nilotica is a plant with an umbrella formed crown with low branches, which are often scattered. It grows to a height of 3 to 5 meters. Acacia Nilotica has wide-ranging of therapeutic uses. In traditional medicine, Acacia Nilotica is widely used. This plant has anti-microbial, anti-plasmodial and antioxidant activity and used for treatment of human immunodeficiency virus, hepatitis C virus and cancer.<sup>7</sup> It is useful for treatment of venereal diseases, nausea, burns and wounds, stomachache and diarrhea.<sup>7,8</sup> Boiled leaf extract used for curing chest pain or pneumonia, powerlessness and chest illnesses, fever, malaria, headache, coughs, painful joints, backache, stomach ulcers are among many other medicinal uses of this plant. The fresh pods of Acacia Nilotica are effective in sexual disorders such as spermatorrhoea, loss of viscosity of sperm and recurrent night discharges. Acacia nilotica is beneficial to prevent of premature ejaculation, relieve irritation in acute gonorrhoea and leucorrhoea, urine-genital disorder such as pelvic prolapse.<sup>8</sup> This plant has bioactive components such as gallic, eleagic acid, isoquercetin, leucocianidolum,

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Kaempferol 3, 7-diglucoside, glucopyranoside, rutin, derivatives of (+)-catechin-5-gallate, apigenin-6, 8-bis-C-glucopyranoside, m-catechol and their derivatives. It has been demonstrated that different parts of the *Acacia Nilotica* have tannins, stearic acid, ascorbic acid, carotene, protein, fiber, arabin, Ca, Mg and selenium.<sup>7</sup> Plants contain tannins and steroids were effective in improving POP and vaginal relaxation syndrome (VRS).<sup>9</sup> Some studies and documents were shown the effectiveness of *Acacia Nilotica* in decreasing the pelvic prolapse, and in improving the quality of life that women suffering from this disease and it is useful to drive back the uterus and anus when they come out.<sup>7,8,10</sup> It tightens the perineum if it used locally.<sup>8</sup> High costs, unavoidable discomfort and low success rate of POP treatment are great problems. The use of herbal alternative is required, for both the patient and the health care system. Due to the well-beings of herbal drugs and the efficacy of tannin that extracted from *Acacia Nilotica* for improving POP, further randomized clinical trial is necessary for verifying benefits.

### Conflict of Interest

No potential conflict of interest relevant to this article was reported.

### References

1. Yum SK, Yoon BK, Lee BI, Park HM, Kim T. Epidemiologic survey of menopausal and vasomotor symptoms in Korean

women. *J Korean Soc Menopause* 2012; 18: 147-54.

2. Abdi F, Mobedi H, Roozbeh N. Hops for menopausal vasomotor symptoms: mechanisms of action. *J Menopausal Med* 2016; 22: 62-4.

3. Tinelli A, Malvasi A, Rahimi S, Negro R, Vergara D, Martignago R, et al. Age-related pelvic floor modifications and prolapse risk factors in postmenopausal women. *Menopause* 2010; 17: 204-12.

4. Kim HG, Song YJ, Na YJ, Choi OH. A case of vaginal cancer with uterine prolapse. *J Menopausal Med* 2013; 19: 139-42.

5. Rahn DD, Good MM, Roshanravan SM, Shi H, Schaffer JI, Singh RJ, et al. Effects of preoperative local estrogen in postmenopausal women with prolapse: a randomized trial. *J Clin Endocrinol Metab* 2014; 99: 3728-36.

6. Barbosa ER, van Langevelde F, Tomlinson KW, Carvalheiro LG, Kirkman K, de Bie S, et al. Tree species from different functional groups respond differently to environmental changes during establishment. *Oecologia* 2014; 174: 1345-57.

7. Ali A, Akhtar N, Khan BA, Khan MS, Rasul A, Shahiq-UZ-Zaman, et al. *Acacia nilotica*: A plant of multipurpose medicinal uses. *Journal of Medicinal Plants Research* 2012; 6: 1492-6.

8. Farzana MUZN, Tharique IA, Sultana A. A review of ethnomedicine, phytochemical and pharmacological activities of *Acacia nilotica* (Linn) Willd. *J Pharmacogn Phytochem* 2014; 3: 84-90.

9. Sepahvand F. Herbal gel from chestnut seed coat for pelvic floor muscle relaxation in women and a method of synthesizing the same. Khoram Abad, IR: Patient Application Publication, 2016. [Cited by 2016 Feb 2]. Available from: <http://www.freepatentsonline.com/20160022755.pdf>.

10. Farzana MUZN, Sultana A. Clinical evaluation of efficacy of *Acacia arabica* (Aqaaqia) in uterine prolapse (Nutue Rehm). *J AYUSH* 2014; 3: 8-16.