



Short communication

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Laminaria species and usefulness in obstetrics and gynecology

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ABSTRACT

Laminaria species is a group of marine algae that is generally known as sea brown algae. It can be seen around the world and the coastal people have known it for years. The use of *Laminaria* spp. in medicine is very interesting. In this short article, the authors summarized and discussed on *Laminaria* spp. and usefulness in obstetrics and gynecology.

1. Introduction

There are many kinds of marine algae. Several medical advantages of algae is confirmed[1-11]. Of several species, *Laminaria* species is a group of marine algae that is generally known as sea brown algae. It can be seen around the world and the coastal people have known it for years. Generally, the algae can be seen at 25 to 100 feet depth level. This algae has been used as food source for a long time[12]. It is also mentioned as nutraceutical that can be useful against obesity and diabetes[13]. The use of *Laminaria* spp. in medicine is very interesting. In this short article, the authors summarized and discussed on *Laminaria* spp. and usefulness in obstetrics and gynecology.

2. *Laminaria* spp. in obstetrics

Using *Laminaria* spp. in obstetrics is very interesting[14]. For a few years, the algae has been used for vaginal preparation[14]. It is indicated for help induce abortion[15-17]. In fact, the vaginal

preparation is a very important medical procedures in obstetrics[18-27]. Herczeg *et al.* concluded that the dilatatory effect of laminaria was an obvious help in termination of both first and second trimester pregnancies[16]. The vaginal dilation effect is considered safe and produced less side effect comparing to other methods[28-30]. Hence, the use of this algae should be considered in clinical practice[28].

3. *Laminaria* spp. in gynecology

Using *Laminaria* spp. in gynecology is very interesting[14]. The use of the algae in gynecology is just developed (after using it in obstetrics for a long time). Using of *Laminaria* spp. in vaginal preparation for obstetric surgery can be seen at present. Using for hysteroscopy, Darwish *et al.* noted that both misoprostol and laminaria were equally effective in inducing proper cervical priming prior to operative hysteroscopy with minimal time of cervical dilatation[31]. Al-Fozan *et al.* concluded that laminaria may be more effective than misoprostol, with uncertain effects for complication rates[32] and also noted that the possible benefits of laminaria need to be weighed against the inconvenience of its insertion and retention for one to two days[32].

Apart from vaginal preparation, *Laminaria* spp. is also applied for management of colpitis. Shabrin and Shapiro recently reported success in the treatment of trichomonal colpitis with preparations of laminaria[33]. The application on management of uterine myoma

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and uterine cervix cancer is also reported. For example, Kumar and Good reported using hygroscopic laminaria tent for gradual cervical dilatation in place of manual cervical dilatation[34]. Another report by Goldrath used the algae to help dilate vagina in vaginal removal of the pedunculated submucous myoma[35].

4. Conclusions

As a marine product, the *Laminaria* spp. preparation can be safely used in management of several problems in obstetrics and gynecology.

Conflict of interest statement

We declare that we have no conflict of interest.

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