



Use of Herbal Medicines to Induce Labour by Pregnant Women: A Systematic Review of Literature



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Submission: May 30, 2017; Published: June 27, 2017

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Abstract

The use of herbal medicine to induce or accelerate labour is commonly practiced in many cultures world wide, however, this is of great concern in some African countries, Zambia inclusive because of its effects on the health of the mother and foetus. This paper analyses the growing literature relating to use of Herbal medicines to induce labour by pregnant women and commonly used herbs and concludes that more research is required to under this phenomenon. Articles published from 2006 to 2017 were reviewed. The electronic data bases were searched and 10 studies were identified.

Keywords: Herbal medicine; Induce; Labour

Introduction

The use of herbs to induce labour is still common among some pregnant women in some parts of the country; however, little is known scientifically about the safety of most herbs during pregnancy and labour. This is because the herbs might have harmful effects on both the mother and the foetus. According to Born and Barron some plants contain natural toxins that could be dangerous if consumed. This review examines the empirical literature regarding use of Herbal medicines to induce labour by pregnant women.

The world health organisation defines normal labour as low risk throughout, spontaneous in onset with the foetus presenting by the vertex, culminating in the mother and infant in good condition following birth. The course of normal labour consists of regular progression of uterine contractions, effacement and progressive dilatation of the cervix and progress in descent of the presenting part. There is increasing acknowledgment that there are more than three stages of normal labour. The first stage of labour lasts from the onset of regular uterine contractions to full dilatation of the cervix and is divided into three phases; the latent, active and transition phases. The second stage of labour is that of expulsion of the fetus, it begins when the cervix is fully dilated and it is complete when the baby is born. The third stage of labour lasts from the birth of the baby until the placenta and membranes have been expelled. According to

Lowdermilk and Perry, the fourth stage of labour is the period of immediate recovery when homeostasis is re-established.

Main Objective of the Review

To determine the prevalence and common herbal medicines used to induce labour by pregnant women.

Literature review

A search of the literature assessing the use of Herbal medicines to induce labour by pregnant women was undertaken using electronic data bases such as Medline, Pub med, Science direct using keywords "Normal labour and Use of herbs to induce labour". Medical subjects handling terms (MeSH) and free terms such as herbs used to induce labour, herbal use during pregnancy and traditional herbs were used for the search.

The search was limited to English full-length research articles in peer reviewed journals from the year 2002 to 2017 inclusive. All research articles that describe the use of herbal medicines during labour by pregnant women were included.

Results

A total of 55 articles were identified and reviewed for suitability. Of those articles, 11 met the inclusion criteria. The articles were reviewed for Author/s and year of publication, study title, setting, design, sample size, prevalence of herbal

use and name of herbs used. Among the studies reviewed, 9 are from African countries namely Zambia, Tanzania, South Africa, Nigeria, Zimbabwe and two from Ghana. The other two studies are from Omani and Malaysia. The study designs ranged from quantitative, qualitative and systematic review. The summary of the studies is indicated in Table 1 below.

Table 1: Studies on use of herbs during labour.

Author/S and Year of Publication	Study Title	Study Setting	Study Design	Sample	Prevalence of Herbal Use	Name of Herbs Used
Maluma S et al. [1]	Prevalence of traditional herbal medicine use and associated factors among pregnant women of Lusaka Province	Zambia	Cross sectional study	273 pregnant women	32%	Traditional herbs Moono, Mulolo
Dika et al. [2]	Prevalent use of herbs for reduction of labour duration in Mwanza, Tanzania: Are obstetricians aware?	Tanzania	Cross sectional study	178 study participants	23%	Ginger (<i>Zingier officinale</i>), Onions (<i>Allium cepa</i>) Neem (<i>Azadirachta indica</i>).
Adusi-pokulo Y et al. [3]	Type of Herbal medicines utilized by pregnant women attending antenatal clinic in Offinso North District: Are orthodox prescribers aware?	Ghana	Cross sectional study	384 pregnant women	6.5%	Cassia occidentalis Sidaacuta, Cola gigantea nnonasenegalensis, Nauclealatifolia
Ramasubramaniam S et al. [4]	Use of herbal preparations among parturient women: Is there enough evidence- A literature review	Oman	Systematic review	9 articles	-	Blue and Black cohosh, Isihlambezo, raspberry leaves, castor oil raspberry leaves, evening primrose oil, Rasberyleaf, Ginger, Echinacrea, canbery, leaves, Flora dix ginseng, Valerian and chanlibao
Maputle MS et al.[5]	Traditional medicine and pregnancy management : Perceptions of traditional health practitioners in Capricorn district, Limpopo province	South Africa	Qualitative	8 Traditional Health Practitioners	-	Agapanthus and typhasp
Otoo P et al. [6]	Food prohibitions and other traditional practices in pregnancy: A qualitative study in Western region of Ghana	Ghana	Qualitative	8 to 10 participants in 6 focus groups discussions 8 informants		Setedua, trontrofo, akokonyidemeguwekyir and eban, awombreduro, aponsoe, nunum (middle of palm fronts), the back of cola nut tree

Olowokere EA [7]	Women's perception of safety and utilization of herbal remedies during pregnancy in a local government area in Nigeria	Nigeria	Descriptive cross-sections study	300 women	12% to augment labour	Agbo (Local name for the concoction of herbs)
Mureyi DD et al. [8]	Prevalence and patterns of prenatal use of traditional medicine among women at selected Harare clinics: A cross sectional study	Zimbabwe	A cross sectional survey	248 women	Fifty-two (52%)	Abelmoschusesculuntus (Okra/delele), Pauzoliamixta Cannabis sativum, DicercryumZanguebarium Albiziaamara(muora) 1), Terminaliasericea(mususu) Ricinuscommunisroot, Avocado seeds,Apple seeds). Ricinuscommunisroot, Avocado seeds,Apple seeds).
Maliwichi-Nyirenda PC et al. [9]	Medicinal plants to induce labour and traditional techniques used indetermination of onset of labour in pregnant women in Malawi: a case study of Malanje district	Malawi	Qualitative study	Focus group discussion, Key informants	-	Ampelocissus, Cyphostemma and Cissus.
Azriani AB, et al. (2008)	The use of herbal medicines during pregnancy and perinatal mortality in Tumpat District, Kelantan, Malaysia.	Malaysia	Cross sectional study	210	51.4%	Orang Asli herbs and Coconut oil
Kamatenesi-Mugisha M & Orreyem-Origa H [11]	Medicinal plants used to induce labour during childbirth in Western Uganda	Uganda	Survey	285 women	80%	Toadstool mushrooms(Tricholomataceae) Physalisperuviana, Solanumindicum , Cleome gynandra, Pennisetumpurpleum, Phoenix reclinata,Euphorbia tirucalli, PennisetumpurpleumSchum., Phoenix reclinataJacq, Commelinaerecta L

Discussion

This review of literature suggests that some pregnant women use herbs to induce labour. Previous studies of traditional medicine use have conservatively reported rates between 6.5% to 80% in Ghana, Nigeria, Tanzania, Zambia, Malaysia, Zimbabwe and Uganda. A Zambian study by Maluma et al. [1] mentioned Moono and Mulolo (Traditional herbs) as herbs commonly used to induce labour. Ginger (*Zingier officinale*), Onions (*Allium cepa*) (*Neem (Azadirachtaindica)*) were identified as herbs used to induce labour by Dika et al. [2], in a cross sectional study conducted in Manza, Tanzania.

Adusi-Pokulo et al. [3] conducted a study in Ghana on Type of Herbal medicines utilized by 384 pregnant women attending antenatal clinic in Offinso North District. The findings revealed that *Cassia occidentalis Sidaacuta*, *Cola gigantean Annona senegalensis*, *Nauclea latifolia* were the common herbs used to induce labour.

A systematic review of literature by Ramasubramaniam et al. [4] in Oman showed that Blue and Black cohosh, Isihlambezo, raspberry leaves, castor oil raspberry leaves, evening primrose oil, Raspberry leaf, Ginger, Echinacrea, canberry leaves, Floradix ginseng, Valerian and chanli bao, are used to induce labour by pregnant women. In a study by Maputle et al. [5] it was reported that *Agapanthus* and *typhas* are also used to induce labour).

Other herbs used to induce labour include Setedua, Trontrofo, akokonyi demeguwekyir and eban, awombreduro, aponsoe, nunum (middle of palm fronts), the back of cola nut tree [6] and Agbo (Local name for the concoction of herbs) [7]. Evidence show that *Abelmoschusculuntus* (Okra/delele), *Pauzoliamixta*, *Cannabis sativum*, *Dicer cryum Zangue barium* *Albizia amara* (muora), *Terminalia sericea* (mususu), *Ricinus communis* root, *Avocado* seeds, *Apple* seeds) are used to induce labour [8].

In a qualitative study entitled "Medicinal plants to induce labour and traditional techniques used indetermination of onset of labour in pregnant women in Malawi: a case study of Malanje district" by Maliwichi-Nyirenda & Maliwachi [9] it was revealed that *Ampelocissus*, *Cyphostemma* and *Cissus* are medicinal plants used to induce labour by pregnant women. A study by Rahman et al. [10] in Malaysia showed that *Orang Asli*herbs and *Coconut* oil were used to induce labour. *Toadstool* mushrooms (*Tricholomataceae*), *Physalis peruviana*, *Solanum indicum*, *Cleome gynandra*, *Pennisetum purpureum*, *Phoenix reclinata*, *Euphorbia tirucalli*, *Pennisetum purpureum Schum*, *Phoenix reclinata Jacq*, *Commelin aerecta L.* were also used to induce labour [11].

Herbs used to induce child birth are usually taken towards the end of gestation period or at the on-set of labour pains [11]. Plants that produce uterine contractions have similar action as that of oxytocin hormone, produced on the posterior lobule

of the hypophysis, which stimulates the uterus, experience strong contractions, thus producing labour. However, very little is known about the pharmacology and potential toxicity of the plants used in these herbal remedies [12,13].

Conclusion

The findings of this literature review demonstrate that the traditional herbs are used to induce labour by some women. Evidence from this review suggests that pregnant women use different herbs to induce labour. Therefore there is need to investigate the implications of herbal use to induce labour on pregnancy outcome in order to help women make informed choices.

Limitations of the Study

Few studies have been conducted on the topic. However, despite these limitations, valuable information was gathered in this investigation and will help direct future studies.

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