

Case Report

Ayurvedic Medicines Can Have Side Effects on the Unborn Baby if Taken in Pregnancy

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Abstract

Ayurvedic Medicines (“Ayurveda” for short) have played a significant role in Indian health care for centuries. Ayurveda is one of the world’s oldest holistic (“whole-body”) healing systems - developed more than 3,000 years ago in India. With the advent of allopathic medicine and evidence based medicine becoming the “mantra” of the day - Ayurvedic medicine use had become less, but recently its use has been on the raise for various reasons. We report a case of serious side effects in an unborn baby to raise awareness of the possible side effects.

Introduction

Ayurvedic Medicines (“Ayurveda” for short) have played a significant role in Indian health care for centuries. Ayurveda is one of the world’s oldest holistic (“whole-body”) healing systems - developed more than 3,000 years ago in India. Ayurveda greatly influenced health care practices in the whole world to the extent that by 400 AD Ayurvedic works were translated into Chinese; and modern practices derived from Ayurveda traditions are now a type of complementary or alternative medicine [1].

Ayurveda is based on the belief that health and wellness depend on a delicate balance between the mind, body, and spirit [2]. Classical Ayurveda texts begin with accounts of the transmission of medical knowledge from the Gods to sages, and then to human physicians. In Sushruta Samhita ([Sushruta’s Compendium]), Sushruta wrote that Dhanvantari, Hindu god of Ayurveda, incarnated himself as a king of Varanasi and taught medicine to a group of physicians, including Sushruta [3]. Ayurveda therapies have varied and evolved over more than two millennia. Therapies are typically based on complex herbal compounds, minerals and metal substances (perhaps under the influence of early Indian alchemy or rasa shastra) [4].

Although laboratory experiments suggest it is possible that some substances used in Ayurveda might be developed into effective treatments, evidence based medicine to that effect is lacking. Ayurveda medicine is considered pseudoscientific. Other researchers consider it a protoscience or trans-science system instead. Close to 21% of Ayurveda U.S. and Indian-manufactured patent medicines sold through the Internet were

found to contain toxic levels of heavy metals, specifically lead, mercury, and arsenic [5,6]. The public health implications of such metallic contaminants in India are unknown though there are scanty reports here and there [7,8,9,10].

We report a case here that was affected inadvertently by Ayurvedic medicines.

Case Report

A 32 year old gravida 3 with 2 previous children affected by cystic fibrosis with third pregnancy, traveled to Kerala, India from Perth, Australia in ‘search of cure’ for her unborn child for cystic fibrosis. The parents were non-consanguineous and were of Caucasian descent. She presented to us at 38 weeks of gestation with an abnormal CTG report - suggestive of foetal hypoxia requiring immediate delivery. The conception was natural, but she had intermittent antenatal care as she traveled most of her pregnancy.

The baby was born at 38/40 gestation weighing 3.80 Kgs, but appeared to have hyper dynamic pericardium with heaving and loud systolic murmur

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at the left sternal edge, but baby cried soon after birth. In view of the murmur, baby was admitted to NICU for observation. The baby had no cyanosis, no respiratory distress, had normal peripheral pulses - Chest x-ray showed significant cardiomegaly predominantly contributed by the right ventricle. Hence, the baby was reviewed by a Pediatric Cardiologist at 2 hours of age and the initial echo showed structurally hypertrophied right ventricle but normal systolic function with normal pulmonary valve - both in appearance and in Doppler study. The tricuspid valve was also normal. The ventricular septum was intact and left heart was otherwise normal. The patent foramen ovale was normal with left to right flow. Aortic arch was leftward with no arch abnormality. Essentially, the echocardiogram done soon after birth confirmed no structural abnormality but marked hypertrophy of the right ventricle. Interestingly there was no evidence of flow through the ductus arteriosus and it was assumed that the ductus arteriosus may have closed prenatally. This would have resulted in excessive pulmonary resistance antenatally and therefore secondary right ventricular hypertrophy. By 3 weeks of age, repeat Echo showed the heart to be almost normal with residual ventricular hypertrophy which resolved completely by 8 weeks of age.

Discussion

This baby was suspected to have premature closure of ductus arteriosus with pulmonary flow murmur - as the heart was structurally normal with normal pulmonary pressures, with 90% of the right ventricular hypertrophy resolving within 10 days of birth. This lady had taken no medications during pregnancy apart from Ayurvedic medicines from Kerala - containing Linseed capsules (for omega acids), and some other tablets containing cinicifuga racemosa, squaw vine herb, wild yam root, red raspberry leaves, juniper berries, lemon, harpagophytum procumbens - with the belief that these medications will give her a normal child with no cystic fibrosis, despite having been counseled with both children about autosomal recessive inheritance of cystic fibrosis. We looked through literature and couldn't find the composition of the ayurvedic medicines she took and the possible side effects. There are many drugs which can cause closure of the duct in pregnant women and not advised during pregnancy. Unfortunately, many of the ayurvedic medicines don't have any documented side effects listed in their leaflets.

With evidence based medicine becoming the norm nowadays, it is difficult to justify using drugs which have not gone through randomized control trial for many conditions. With India poised to become a leading country in the next few decades & Ayurveda being the indigenous medicines - it is time for evidence based trials to see its efficacy and document their side effects so that the newer world will start trusting Ayurveda. Even if one accepts the possible side effects, one can do that when they are in prime health, but not during pregnancy as many drugs will/can have long term effects on the unborn foetus [11]. With the government contemplating "merging" of different healthcare systems in India - this is even more critical that we evaluate these medicines scientifically [12,13].

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