Letter to the Editor

Reply on “Constriction of the ductus arteriosus, severe right ventricular hypertension, and a right ventricular aneurysm in a fetus after maternal use of a topical treatment for striae gravidarum”

We read with great interest the brief report of Dr Hayes concerning the unfortunate fetal constriction of the ductus arteriosus of a single male infant that the author associated with use of topically applied Bio-Oil®.1 This is very surprising for us as Bio-Oil® has a long, safe history of use for the treatment of scars and striae and is widely used – it has been marketed in South Africa for 29 years and globally for 14 years, and last year alone over 19 million units were sold. In addition, all ingredients for cosmetic products are considered safe for their intended purpose and are reviewed by the Cosmetic Ingredient Review Expert Panel. Equally, there is no evidence for significant delivery of topical ingredients to the blood stream from cosmetic products, and as a result the systemic health risk is negligible.2

The author pointed out that polyphenols contained in certain foods, herbs, and teas may be implicated in fetal ductus arteriosus, and research has shown that their restriction from the diet is helpful.3–7 Dr Hayes assumes that Bio-Oil® contains polyphenols, and concludes that Bio-Oil® is associated with the medical condition. In our opinion, however, Dr Hayes’ conclusion is based on the erroneous assumption that polyphenols are present in Bio-Oil®. Dr Hayes cites the literature that shows that polyphenols are present in general botanical extracts; however, polyphenols are water soluble, and as only essential oils of Lavandula angustifolia oil, Rosmarinus officinalis leaf oil, and Anthemis nobilis flower oil are used in Bio-Oil®, and the Calendula officinalis extract is produced by extraction in soybean oil, there are no polyphenols in the product.8–21 It also bears mentioning that the essential oils and the C. officinalis extract in soybean oil included in the Bio-Oil® formulation together account for <0.2% of the product.

As Dr Hayes reports, the mother denied intake of excessive quantities of polyphenol-rich foods and beverages, but their total restriction from the diet was not controlled. If, as the author believes, this particular case is caused by polyphenols, then, in our opinion, it is still more likely to be a result of these substances in the diet, than from use of an anhydrous topical product such as Bio-Oil®.

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Conflicts of Interest

A.V.R. and A.D. are both consultants to Union Swiss the manufacturer of Bio-Oil®. P.D. is an employee of Union Swiss.

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References

1. Hayes DA. Constriction of the ductus arteriosus, severe right ventricular hypertension, and a right ventricular aneurysm in a fetus after maternal use of a topical treatment for striae gravidarum. Cardiol Young 2016; 26: 796–798.


