

# Editorial

## Anecdote beats out science—popular but unfortunate

In a recently released commercial film, the scientific process is junked for the more appealing, heart-rending anecdotal “cure.” The impact on society and the public’s perception of dental and medical issues by a successful movie cannot be denied. So, while it is unusual to discuss popular films in international dental journals, when a film takes sides on an issue as important as anecdote versus scientific study—an issue that can confuse even some health care professionals—it is time for concern.

The movie, “Lorenzo’s Oil,” is a based-on-fact story of a family in which the young son, Lorenzo, is diagnosed with a rare disease, adrenoleukodystrophy (ALD). Lorenzo’s parents, Augusto and Michaela Odone, refuse to accept the message they are given, that little or nothing can be done for their son, whose health is destined to deteriorate progressively in a cruel and painful manner—loss of vision, movement, and speech—until he suffers an untimely death.

Lorenzo’s parents set out to learn everything possible about ALD, a hereditary disease marked by an abnormal level of very long-chain fatty acids (VLCFAs) in the blood. ALD sufferers lack the enzyme that breaks down VLCFAs and the resulting abnormally high levels destroy the myelin sheath surrounding nerve fibers. The movie tells us that the Odones discovered through their research that a mixture of two natural oils, oleic and erucic oil, may stop further progression of the disease and could even cause some healing. The mixture of oils apparently lowers the amount of fatty acids in the blood by preventing cells from making VLCFAs.

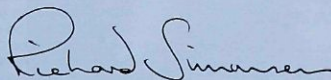
The part-fact/part-fiction story is now complete. Lorenzo’s precipitous decline in health is retarded and reversed to a slight degree when his mother and father administer the oil mixture. Loving parents have thus “cured” their son by disregarding conventional scientific studies supported by the National Institutes of Health and choosing their own course of treatment, which the parents allegedly discovered. The outcome the movie fails to address is the possibility that the oils had no effect and that the remission of the disease occurred by chance. The movie’s creators try to further bolster support for their success story by highlighting the cases of several other children, all of whom claimed benefits from taking Lorenzo’s Oil.

While the audience wipes away tears of sympathy for the children, the fact that many children have shown no benefit whatsoever from taking the oils is conveniently omitted. No thought is given by the movie makers to the great disservice this movie does to all who accept it at face value. Whether or not the oils are doing any good can only be shown by a controlled clinical study utilizing well-known scientific methods to control variables and the placebo effect that may influence or bias the outcome of any single case study. Would Lorenzo’s remission have been identical had he not been given the oils? No one will ever know, because there were no controls.

The beneficial message of the movie is that all patients should take more responsibility for medical and dental health decisions affecting them or their family. Patients should educate themselves so that *they* can make a reasonably informed decision concerning their treatment options. Patients who ask questions should be assisted in gathering the information necessary to help them make an educated treatment choice.

Unfortunately the film eventually makes heroes of the Odones at the expense of science. The Odones should be admired tremendously for their effort to educate themselves about their son’s disease and for doing whatever they thought was best for their son. We should all be so dedicated and involved in major medical or dental health decisions affecting our health. The movie makers, on the other hand, should be criticized for accepting one case history as proof of benefit and denigrating the dispassionate evidence that science provides, thus hailing anecdote over science.

All involved in health care should be concerned when a heavily promoted and successful film promotes in a dramatic and heart-wrenching manner a point of view that is damaging to the public’s appreciation of the scientific method. While anecdote makes dollars in the commercial popular film industry, it is science wherein our trust must be placed.



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