



Word of Mouth - 'Barchester Towers' - a 19th century view on teething'

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Barchester Towers, the second of six novels written by Anthony Trollope between 1864 and 1880, was first published in 1857 and was highly acclaimed in his day. Trollope's childhood was overshadowed by debt and was not a happy one. Unable to obtain a university education he managed to enter the post office in 1834 as a junior clerk, and then transferred to Ireland where he made professional progress. He travelled extensively on official duties in Egypt, the West Indies and the United States and it was during this period that many of his novels were written. He wrote extensively but produced just two series of linked novels, the Barchester books and the Palliser novels. In Barchester Towers we are given insight into family life and some of the vicissitudes of living in the nineteenth century when infant mortality was high. Self-medication was commonplace from unregulated pharmacists, and family doctors had only had a limited knowledge of many diseases. Dentistry was still in its infancy and paediatric care was largely in the hands of non-specialised practitioners.

Teething was known to occur between six months and two years during which time the deciduous teeth erupted on an almost monthly basis. This would be a particularly hazardous period to young children vulnerable to infections and infant mortality was high. It was therefore easy to associate teething with mortality and it was not uncommon to see teething listed on the death certificate. There is little doubt that the importance of this subject to the family was well known to Trollope and therefore it should not be a surprise to see it alluded to in his novels. The quotation from Barchester Towers is presented below(1):

"And then Miss Thorne was great about teeth. Little Johnny Bold had been troubled for the last few days with his first incipient masticator, and with that freemasonry which exists among ladies, Miss Thorne became aware of the fact before Eleanor had half finished her wing. The old lady prescribed at once a receipt which had been much in vogue in the young days of her grandmother, and warned Eleanor with solemn voice against the fallacies of modern medicine.

'Take his coral, my dear,' said she, 'and rub it well with carrot-juice; rub it till the juice dries on it, and then give it him to play with -'

'But he hasn't got a coral,' said Eleanor. 'Not got a coral!' said Miss Thorne, with almost angry vehemence. 'Not got a coral! - how can you expect that he should cut his teeth? Have you got Daffy's Elixir?'

Eleanor explained that she had not. It had not been ordered by Mr Rerechild, the Barchester doctor whom she employed; and then the young mother mentioned someshockingly modern succedaneum, which Mr Rerechild's new lights had taught him to recommend.

Miss Thorne looked awfully severe. 'Take care, my dear,' said she, 'that the man knows what he's about; take care he doesn't destroy your little boy. But' - and she "• softened into sorry as she said it, and spoke more in pity than in anger - 'but I don't know who there is in Barchester now that you can trust. Poor dear old Doctor Bumpwell, indeed-'

'Why, Miss Thorne, he died when I was a little girl.

'Yes, my dear, he did, and an unfortunate day it was for Barchester. As to those young men that have come up since' (Mr Rerechild, by the by, was quite as old as Miss Thorne herself), 'one doesn't know where they came from or who they are, or whether they know anything about their business or not.'

'I think there are very clever men in Barchester,' said Eleanor. 'Perhaps there may be; only I don't know them; and it's admitted on all sides that medical men aren't now what they used to be. They used to be talented, observing, educated men. But now any whippersnapper out of an apothecary's shop can call himself a doctor. I believe no kind of education is now thought necessary.

Eleanor was herself a widow of a medical man, and felt a little inclined to resent all these hard sayings. But Miss Thorne was so essentially good-natured that it was impossible to resent anything she said. She therefore sipped her wine and finished her chicken.

'At any rate, my dear, don't forget the carrot-juice, and by all means get him a coral at once. My grandmother Thorne had the best teeth in the country, and carried them to the grave with her at eighty. I have heard her say it was all the carrot-juice. She couldn't bear the Barchester doctors. Even poor old Dr. Bumpwell didn't please her.'

It clearly never occurred to Miss Thorne that some fifty years ago Dr Bumpwell was only a rising man, and therefore as much in need of character in the eyes of the then ladies of Ullathorne as the present doctors were in her own."

What can one make of this brief comment? It would appear that dentistry played no part in the management of this type of problem. Word of mouth was the way by which a young mother would be informed as to what should be done by way of treatment of simple maladies in young children, and there were traditional treatments for ailments such as teething. Miss Thorne, even though an unmarried lady, was familiar with the use of coral. This would have been a form of a comforter known since ancient Egyptian times when teething rings were made of coral. In this day and age these have been replaced by much cheaper and simpler forms of rings given to young children as comforters and for the relief of symptoms of teething. Why the former should have been rubbed well with carrot-juice is difficult to say. It could be that this was slightly sweet and perhaps there would be some vitamins (A and C) associated with it. A coral ring was probably slightly rough and presumably caused some irritation to the gingivae overlying the erupting tooth. Because of its roughness carrot-juice would dry on it and last perhaps for a short period of time.

The next unusual suggestion made was Daffy's Elixir. In the Oxford English Dictionary this was defined as a "sovereign remedy for disease" hence was adopted as a generic name for quack medicines. This no doubt alluded to one of the many proprietary mixtures, the contents of which were only known to the pharmacist who made them up. They often contained dangerous substances such as opiates, mercury compounds and bromides all of which could be lethal to the infant if overdosed. Some of them were relatively harmless and since the process of teething was a matter of three to ten days for each tooth, the danger might be slight on a single occasion but much less predictable if used on a regular basis. There was another interesting comment. Curiously the Barchester doctor was described as "Mr" Rerechild, was he a mere surgeon? Miss Thorne comments, "Take care, my dear, that the man knows what he's about; take care he doesn't destroy your little boy". This was followed by the additional comments "softened into sorry as she said it, and spoke more in pity than in anger - 'but I don't know who there is in Barchester now that you can trust.'" She quoted another, Dr. Bumpwell, and goes on to comment later on medical men "They used to be talented, observing, educated men" suggesting perhaps that learning was by experience

with age. She went on "But now any whipper-snapper out of an apothecary's shop can call himself a doctor" no doubt referring to the doubtful remedies found in the apothecary's shop or possibly to the medical training from the College of Apothecaries. The final comment was, "Don't forget the carrot-juice, and by all means get him a coral at once", perhaps the safest thing that could be done and the least likely to cause any problems, at least this would be healthy and harmless.

There were a number of substances which by tradition were given to babies and small children. One of these was mercurous chloride which gave rise to a disease also known as acrodynia, erythredema or Feer-Swift disease; this compound was widely used in the nineteenth and early twentieth century. The babies were miserable, bright pink or red in colour and photophobic, the hands and feet had a raw beef appearance. The children were anorexic and had a peeling skin and occasionally the extremities became gangrenous(2). Mercurous chloride or calomel was a substance commonly included in mixtures which were prescribed for teething. Overdosing gave rise to clinical features similar to those of Pellagra (due to nicotinic acid deficiency). Pink disease itself occurs early in life often to well fed children with no sign of any deficiency in their diet. It was not until 1922 when Zahorsky, a Hungarian-American paediatrician commented on the similarity of pink disease to that of mercury poisoning, but because there was no clear history of calomel administration no action was taken at that time. In 1945 Dr Joseph Warkany from Cincinnati Children's Hospital noted that large amounts of mercury were excreted in the urine of a child with pink disease. He did not publish the findings until 1948 and it was some time before the cause of this disease was recognised and much harm had been done to very many babies before teething powders containing it were restricted.

In the nineteenth century there was little control over a variety of medications. Substances such as opiates and bromides were routinely put into a proprietary of teething powders and were used as a popular remedy for tranquillising crying and feverish infants. Lynette Finch in 1999 wrote a paper on Soothing syrups and teething powders: "Regulating propriety drugs in Australia, 1860 to 1910."(3) She noted the matching of statistical records between Europe, Britain and America at that time in which infant diarrhoeal mortality accounted for between a quarter and a half of all the infants' deaths. Diarrhoea has been associated with teething over the centuries although the evidence for this did not exist. One of the difficulties with the various potions given was that there was no attempt to vary the dose for babies and older children, and the doctor would not know what was in the medication, as this was not published. There was a large market for ready to use infant soothers and powders which could be bought over the counter by the mother with little or no consultation with the doctor. There was a lack of control of proprietary drugs early in the 20th century and many infants died as a result of this form of self-medication or following inappropriate dosing by the family doctor. Lynette Finch described the situation in Australia where poor people especially in country areas had to rely on proprietary medicines alone, which frequently combined large amounts of opiates and bromides and were quite unsuitable for young babies. In some cases a syrup was given which was rubbed on the gums and of course swallowed. It was also unfortunate that, towards the end of the century, the parents were often blamed for giving these proprietary drugs which were widely advertised. It was not uncommon to find several children in a family who died after being similarly medicated. Even the doctor would tend to give more of the medicine without being aware of what was in it and thus hastening death. The common remedies used were Stedman's Soothing powder, Atkinson's Royal preservative, Chlorodyne and Mrs Winslow's Soothing Syrup. Sugar was often added to make the medicament more palatable, as well as herbs and

alcohol. In Australia it was not until the Queensland Sale of Food and Drugs Act of 1881 and the Pure Food Act of 1907 that these drugs became controlled, their contents had to be made available and the Patent Laws as applied to the drug companies were to some extent curtailed.

In the nineteenth and early twentieth century there was a widespread fear of teething in the community. This was accentuated and perpetuated by the high mortality of children between six months and two years. This was associated with the essentially physiological process of teething. Other factors such as social deprivation, poor living conditions and sanitation, poverty, poor control of infection and dietary ignorance all played their part. Unfortunately there was also the exploitation of the public by manufacturers of patent medicines.

Teething troubles have been with us since the dawn of history. Problems with the dentition were reported in ancient Sumerian times, in Hindu writings, in the Hippocratic literature as well as in ancient Egypt. Hippocrates, on his work on the dentition, stated that at the approach of the dentition itching of the gums, fevers, convulsions, diarrhoea occur, especially when the canine teeth are cut in those who are fat or are constipated. To this list has been added general unrest, sleeplessness, night terrors, drooling, epilepsy, paralysis, vomiting, strangury, skin eruptions, running ears, deafness, coughs and colds, croup, and many other conditions and details, well described in a paper by Samuel X. Radbill, 'Teething in fact and fancy'.(4)

Ambrose Pare advocated lancing of the gums; this was widely taken up in England by John Hunter the father of English surgery. He taught that the first teething pain in cutting the gum and produced other symptoms which often proved fatal to children so that there can be no doubt about the propriety of opening a way for them. He observed that lancing of the gums was not attended by any dangerous consequence(5). This was also advocated by Marshall Hall a 100 years later.

Amulets were also used to protect the child from the dangers of teething in ancient Egypt. A child's first shed tooth was worn to relieve the pains of teething, or a dolphin's tooth to give protection from night terrors, and a shark's fossil tooth to protect against lightning. In ancient Egypt coral teething rings were used and they had a head of Bes inscribed, a god interested in child welfare. The design was inscribed on a bell to be worn by the teething child to ward off the evil eye. Various other medicaments were given such as orris and colocynth. Local remedies applied to the gums in Greek and Roman times included goats' milk, hare's brains and hen grease.

What of treatment today? Teething rings are still used but coral has been replaced by synthetic materials, some of which are satisfactory but some have been abandoned, as a result of the unusually poisonous nature of the materials used. Sweetened rusks have been recommended as well as the hard foods. Topical medication is still popular, substances such as 'Bonjela' (choline salicylate being the principal medicament), and preparations containing lignocaine are widely available. 'Modified Stedman's Teething Jelly' is still around as are other local medicaments including antiseptics and salicylates.

For many years chloral hydrate was given during the twentieth century but now this has been replaced by elixirs of phenergan and similar substances. Analgesics such as 'Kalpol' and paracetamol may also be safely used. Over the last two centuries there has been much

argument about what constitutes the symptoms of teething. Perhaps the most likely are irritability, slight pyrexia, drooling, mouthing and sleep disturbance. Other symptoms such as diarrhoea, ear infections and an increased susceptibility to infection in general are more debateable and the evidence is not well established. Similarly with vomiting and respiratory involvement, but many of these are widely believed by parents, nursing staff and even some doctors. There may be a chance association for example with a mild herpetic gingivostomatitis occurring around the time of teething which could confuse the issue. There is little doubt that loss of appetite, sleep disturbance and restlessness are associated with tooth eruption for a few days before, and a few days after, the eruption of teeth, in particular the deciduous molars. The evidence-based medicine of today would exclude most of the more serious associations for which there is no clear proof. The use of the lancet as recommended by Hunter, Marshall Hall and many others would not be considered appropriate, except perhaps when a large eruption cyst is present. We are indeed fortunate in rearing children in the twenty-first century for in 1839, 5016 children allegedly died from teething, and in 1910, 1600 deaths were attributed in England and Wales to that cause. Most clinicians are only aware of teething as a nuisance when our own offspring are affected and a sleepless night is involved. In Anthony Trollope's time one might have thought very differently.

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(1). Anthony Trollope, Barchester Towers, Chapter 23, Pages 201 to 202, Penguin Popular Classics

(2). Anne Dally, 'The rise and fall of Pink disease', Social History of Medicine, 1997,1Q, 2, pp 291-304 ' Medical History, 1999, 43, 74, p 94.

(3). Medical History, 1999, 43, 74, p 94

(4). Samuel X Radbill, 'Teething in fact and fancy', 1965, Bulletin of the History of Medicine, 39

(5). John Hunter, 'The works of John Hunter', Vol 2, Ed. Palmer, JF, London 1835, p34