**“Let the eat strawberries” – dietary restrictions for children with cancer**

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# “Let them eat strawberries” – dietary restrictions for children with cancer

Everyone has a strawberry story. For some, it may be the recollection of eating a perfectly ripe berry, touched with cream, while watching tennis at the Wimbledon Championships. For some, like me, it will be grandparental tales of nearly devouring a worm that had hidden within the fruit. And for some, it may be the months of longing while they saw others snacking on the scarlet treats, denied access because the tiny little pits might harbour bad bacteria that would allow a life-threatening infection to enter and take hold of their immunosuppressed bodies.

Nutritional support is an undeniable ‘good’ in the armoury of treatments we use for children with cancer. It does not address treating the cancer directly, and as such it is a form of ‘supportive care’, but how we do it may influence survival, and certainly seems to affect quality of life.[1] There have been multiple randomised clinical trials that have developed over the years, asking questions ranging from whether nutritional support beyond plain fluid replacements helped (probably), through methods of delivering that support (enteral better than parenteral, when possible), to composition of parenteral support (unclear) and specific supplementation for functional benefit, like glutamine which provides no meaningful benefit. [2] We know we need to keep on learning more about nutrition, how to deliver and fine tune our support, and modify it for special requirements of different children. Nutrition isn’t the only reason for eating, though.

Food, the act of preparing and sharing it, is a key element of many cultural expressions of love and respect. You can turn to formal research in the area of food refusal to see the effect upon family wellbeing [3], or you can address yourself to the popular media to see how even in fantastical and speculative fiction, the sharing of bread and salt and the necessity of hostelry are built into these worlds. [4, 5] We know the changing demands of children going through cancer treatment, the difficulties of food provision in hospital and the costs of this to families are draining and difficult, but knowing that your child eating is rewarding.[6] We know food is good.

But for many years, we worried about how safe food really was. Unlike the sterile medicines and fluids, and the chlorine-wiped floors and airflow contained boxes our patients and families lived in, food came from plants and animals and the natural world. It would carry in bacteria, fungi and a sense of unease. For those patients at greatest risk of infection, with severe neutropenia, the neutropenic diet was developed to eradicate the chances of food borne infection. As with many other innovations that aren’t packaged as pharmaceutical though, it was quite a few years before our evaluations caught up with practice. The trials didn’t show the benefits we expected, and a Cochrane review confirms that what little evidence there is doesn’t suggest the neutropenic diet will help.[7]

The analysis of the nutritional and microbiological content of food, both from a neutropenic and normal diet, by Elert Maia and colleagues in this issue of the Journal [8] adds a further layer of woe to the neutropenic diet. They showed the neutropenic diet, while containing sufficient intake to meet nutritional targets, was less nutritious, particularly in Vitamin C and fibre content, and did not differ in microbiological contamination rates. Their call for a focus on food safety, through excellent adherence to hygiene and preparation guidelines, is very welcome.

The neutropenic diet is less enjoyable, less nutritious, no safer and more difficult to adhere to than safe-eating dietary advice. Like cranial radiotherapy for ringworm [9] or supersaturated calcium phosphate mouthwashes to prevent mucositis [10], the neutropenic diet should be placed in the list of Treatments We Thought Were Good But Are Not. For children with cancer, we should let them eat strawberries.

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