Childhood cancer is a neglected disease

Quality of care and survival rates have lagged in poorer countries.

Nicolò Musner

21 February 2013

The treatment of childhood cancer is one of oncology's success stories, with five-year survival rates that have shot up from 30% in the 1960s to 80% now — at least in high-income countries 1.

But in a series of articles published today in *The Lancet Oncology* ^{1–4}, experts from around the world warn that in recent years progress has stalled — both in the improvement of survival rates and the mitigation of long-term side effects — and that more than 90% of children who die from cancer are in low- and middle-income countries.

What is at stake, the researchers say, is not just the need for new drugs to treat children whose cancers are now incurable: the treatments also need to be kinder³.



RAGUET H./BSIP/SuperStock

Paediatric cancer diagnosis and treatment have improved in recent decades, but in lower-income countries children still are likely to receive poor care, if any.

More than 40% of childhood-cancer survivors experience lifelong side effects from treatment. Anthracyclines, used to treat many types of cancer including leukaemia, can damage the heart; platinum, widely used for treating certain tumours, can cause deafness. Even the less-toxic, targeted therapies that slow the spread of cancer by stopping the growth of blood vessels in tumours can harm children by stopping other blood vessels from developing properly at crucial times during childhood.

Still, the situation is far worse in poorer countries, where more children die from infectious or parasitic diseases than from cancer — leaving cancer overlooked as a result². Poorly trained doctors, inadequate diagnostic tools and lack of access to therapies — even palliative treatments — all contribute to the problem.

Another serious issue highlighted in the papers is that of data collection. The incidence of childhood cancer is poorly known in much of the developing world. In Africa, reliable cancer registries cover only 1% of the population, according to one of the studies⁴.

In developing countries a diagnosis of cancer is still a death sentence for the majority of children, says lan Magrath, president of the International Network for Cancer Treatment and Research in Brussels, Belgium, and a co-author of two of the studies. But these figures are just estimates, because the disease is extensively under-diagnosed.

Many improvements could be made, the authors write, including better training of health workers in poorer countries; use of the Internet to connect local pathologists to international experts to improve diagnosis; and the creation of at least one cancer centre in each country.

Having reliable data on cancer incidence may increase the pressure on local policy-makers. For example, in 2006, Mexico developed a series of health-care reforms and set up 49 paediatric-cancer programmes, promoting access to therapies and reducing the rates at which patients abandoned treatment courses.

Closing the cancer divide is a matter of health and equality and "can greatly contribute to reducing this prominent cause of childhood death," says Felicia Marie Knaul, director of the Harvard Global Equity Initiative in Boston, Massachusetts.

Nature | doi:10.1038/nature.2013.12462

References

1. Pritchard-Jones, K. et al. Lancet Oncol. http://dx.doi.org/10.1016/S1470-2045(13)70010-X (2013).

- 2. Magrath, I. et al. Lancet Oncol. http://dx.doi.org/10.1016/S1470-2045(13)70008-1 (2013).
- 3. Vassal, G. et al. Lancet Oncol. http://dx.doi.org/10.1016/S1470-2045(13)70013-5 (2013).
- 4. Sullivan, R. et al. Lancet Oncol. http://dx.doi.org/10.1016/S1470-2045(13)70007-X (2013).