Lymphoma

I have heard of several people becoming ill with lymphomas. What can be done to prevent this disease?

Lymphomas are a complex group of disorders. We do not have enough space, nor are we expert enough, to give more than a short overview.

The lymphoma is a solid tumor that arises in lymphoid tissue. Some lymphomas have a close relationship with the leukemias.

Perhaps we should first consider the lymphatic system. Blood is pumped from the heart through arteries to the capillaries and returned by veins to the heart. The tiny capillaries are not totally watertight, so some of the blood fluid oozes through them into the tissues. This fluid is called lymph and is collected through a network of tiny vessels called lymphatics. These vessels bring the lymph back to the veins. They have little filter stations dotted along their length. These are called lymph nodes. A lymph node has collections of lymphocytes, which are immune cells that fight infection clustered within them.

Lymphocytes are broadly classified as T-lymphocytes or B-lymphocytes. T cells are lymphocytes whose genes have been switched on in the thymus and have developed special receptors on their surface. B-lymphocytes, which are the majority of lymphocytes, have been switched on to produce antibodies. Both types are needed in immunity, and both types can give rise to lymphomas.

Some lymphomas are the laziest cancers known, and others can be very aggressive. Often lymphomas develop into leukemias.

The classifications of lymphomas have undergone several changes over the years. Basically, we talk of Hodgkin’s and non-Hodgkin’s lymphomas. But there are subclassifications that are too detailed for this column.

It is increasingly obvious that multiple causes of lymphoma may exist. Burkitt’s lymphoma, and probably 40 percent of Hodgkin’s lymphoma cases, are related to infection with a virus called Epstein-Barr (EBV). Burkitt’s lymphoma is predominantly seen in Africa. In Asia, there is a form of lymphoma that is nasal in.
location and seems also to be related to EBV. Several of the non-Hodgkin's lymphomas are possibly related to the use of agricultural chemicals, which affect farm workers more than any other group.

You may have noticed that more lymphomas seem to be occurring among your acquaintances, because for the last 50 years, for reasons unknown, non-Hodgkin’s lymphoma has been increasing at a rate of 4 percent per year. In 2000, 60,000 new cases were documented.

A special kind of stomach lymphoma is related to infection with bacteria called Helicobacter pylori. The bacteria do not cause the lymphoma directly, but rather they set up such a strong immune reaction that somehow a lymphoma is triggered. This MALT lymphoma, as this is called, is not as aggressive as other lymphomas and often resolves with antibiotic therapy, which kills the bacteria.

Lymphomas vary so much it is hard to give a sweeping overview of outcomes, but many respond really well to treatment.

Hodgkin’s lymphoma, for example, is very successfully treated, and a cure can be expected in the vast majority of cases. Treatment with radiotherapy and chemotherapy is not the easiest to endure, but offers such a great possibility of cure that we would advise all patients with lymphomas to follow the advice of appropriate qualified medical practitioners.

A lymphoma, like all cancers, starts when the cell regulation by the cell nucleus is altered. This means its origin is, in a way, “genetic.” Several lymphomas have defined chromosomal abnormalities, and in fact, children with trisomy 21, or Down syndrome, are at increased risk for some forms of leukemia, including lymphomas. When an infectious agent alters the genes, cell regulation may be altered. Infection with the human immune deficiency virus (HIV) increases the risk of lymphoma in the person who is infected.

No part of the world is free of this unpleasant group of tumors, though the varieties may show regional differences.

Note: This important topic was also discussed by the doctors in Adventist Review, April 26, 2007.

Allan R. Handysides, M.B., Ch.B., F.R.C.P. (C) is director of the General Conference Health Ministries Department; Peter N. Landless, M.B., B.Ch., M.Med., F.C.P.(SA), F.A.C.C., is ICPA executive director and associate director of Health Ministries.

While this column is provided as a service to our readers, Drs. Landless and Handysides unfortunately cannot enter into personal and private communication with our readers. We recommend that you consult with your personal physician on all matters of your health.