

2.5-fold increased risk of atherosclerosis found in children with HIV

Children with human immunodeficiency virus (HIV) have a 2.5-fold increased risk of atherosclerosis, according to new research (Alvarez Fuente et al, 2012). Antiretroviral treatment, lipid-lowering drugs and prevention with healthy lifestyles are needed to prevent early death from cardiovascular disease.

Antiretroviral treatment is prolonging the lives of HIV patients, who no longer die prematurely from the infection. But the treatment is not a cure, and the virus remains in the body. 'The infection makes the body fight for its life, so the immune system is always activated and there is chronic

inflammation,' said Dr Talia Sainz Costa, principal investigator of the study and a paediatrician from Madrid, Spain.

Many antiretroviral drugs increase low-density lipoprotein cholesterol and lower high-density lipoprotein cholesterol.

A study aimed to discover whether children and adolescents already have early atherosclerotic damage. Carotid intima media thickness was measured using echocardiography in 150 children and adolescents with HIV and 150 age- and sex-matched healthy controls.

The researchers found that 17% of the HIV group were smokers compared to 11% of the control group. After adjust-

ment for age, sex, body mass index and smoking status, HIV was independently associated with greater intima media thickness ($P=0.005$). Children and adolescents had a 2.5-fold increased risk of higher intima media thickness caused by HIV.

Dr Sainz Costa concluded: '... Clinicians need to focus on ensuring their young patients with HIV take the antiretroviral treatment, take lipid-lowering drugs when necessary, and adopt healthier lifestyles.'

Alvarez Fuente M, Sainz Costa T, Medrano C et al (2012) Increased subclinical atherosclerosis in HIV-infected children and adolescents – the CaroVIH study. Abstract P1020. *Eur J Echocardiography Abstracts Supplement* 13(S1): i178

Personalized medicine for non-small cell lung cancer

Crizotinib (Xalkori), the first of a new class of therapy for advanced non-small cell lung cancer, is now available in the UK. Crizotinib, an oral treatment, has been granted a conditional licence for patients with previously treated advanced non-small cell lung cancer, whose tumours test positively for the anaplastic lymphoma kinase (ALK) protein.

New treatment for wet age-related macular degeneration

Aflibercept solution for injection (Eylea) has been launched for the treatment of wet age-related macular degeneration. This gives clinicians an alternative which is as effective as current treatment, but requires fewer hospital visits.

Acclidinium gives comparable bronchodilation to tiotropium

Acclidinium has been compared to tiotropium in a 6-week, randomized, double-blind, double-dummy, placebo and active comparator controlled, parallel multicentre clinical trial. Acclidinium provided statistically significant 24-hour bronchodilation vs placebo, comparable to that of tiotropium.

Children born after infertility treatment more likely to suffer from asthma

Asthma is more common among children born after infertility treatment than among children who have been conceived naturally, according to findings from the UK Millennium Cohort Study (Carson et al, 2012).

The UK Millennium Cohort Study is following prospectively 18 818 children from across the UK who were born between 2000 and 2002. Full data were available on 13 041 at the age of 5 years and 11 585 at the age of 7 years. Among 5-year-olds, 104 were born after assisted reproduction technology.

Compared with planned children, those born to subfertile parents were 39% more likely to experience asthma, 27% more likely to wheeze,

and nearly twice as likely (90%) to be taking anti-asthmatic medications at the age of 5 years.

This association was mainly related to an increase among children born after assisted reproduction technology who had a more than 2.5-fold increased risk of asthma, nearly 2-fold increased risk of wheezing and more than 4-fold increased risk of taking anti-asthmatic medications. Similar but reduced associations were also present at the age of 7 years.

Dr Claire Carson, a researcher at the National Perinatal Epidemiology Unit at the University of Oxford, UK, said: 'Although the children born after assisted reproduction technology were more

likely to be diagnosed and treated for asthma than other children ... in absolute terms the difference is quite small. Fifteen per cent of the children in our study had asthma at the age of five. Although this figure was higher, 24%, in the IVF children, it isn't much higher than the one in five risk for all children in the UK.'

Possible explanations include the severity of infertility, infertility treatment, over-reporting of asthmatic symptoms by parents, or other confounding factors that may not have been taken into account.

Carson C, Sacker A, Kelly Y, Redshaw M, Kurinczuk JJ, Quigley MA (2012) Asthma in children born after infertility treatment: findings from the UK Millennium Cohort Study. *Hum Reprod* Dec 5 (Epub ahead of print)