TABU

Lääkeinformaatiota Lääkelaitokselta

Läkemedelsinformation från
Läkemedelsverket, Finland

Drug information from the National
Agency for Medicines, Finland

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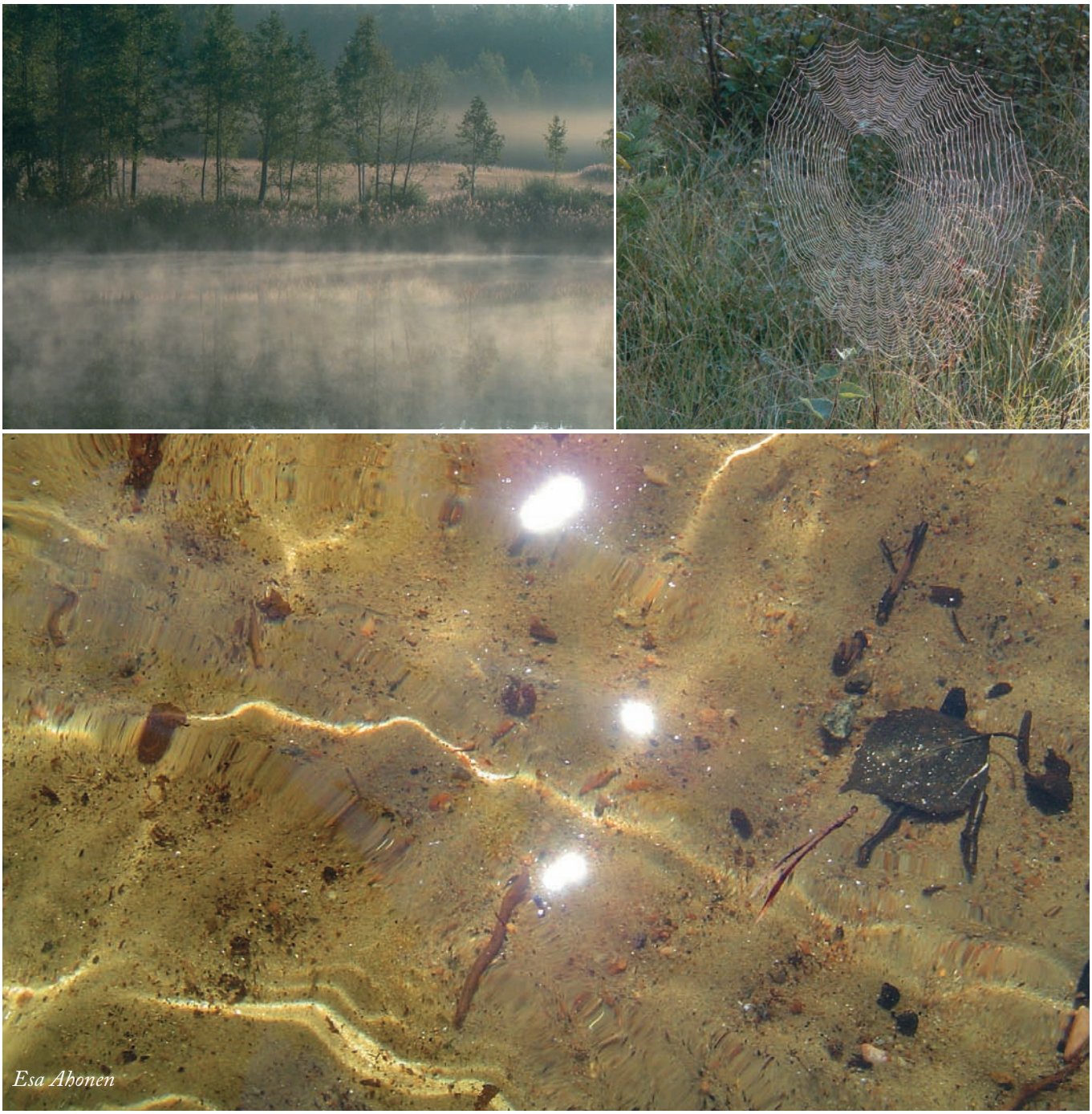

Esa Ahonen

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In English

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Pharmacy chains, kiosks and markets; where is the beef?

The Ministry of Social Affairs and Health published its new strategy in June.[1] The strategic aims of pharmaceutical services are discussed in a couple of sections, mainly focusing on ways for improving the cost-effectiveness of pharmaceutical therapy and distribution of medicines. The ways suggested include reviewing the problems involved with the two-channel financing of medicinal products , drawing up guidelines for these, developing the refund system of medicines and reforming the pharmacy system. The aim is to secure a nation-wide distribution of medicines and pharmaceutical information supplied by pharmacies to the consumers.

The strategy of the Ministry of Social Affairs and Health also sets concrete targets for pharmaceutical services, which is positive, and in addition especially for issues other than those relating to cost-cutting exercises alone. Medicines are such an important part of securing modern health services that issues ought to be examined from other viewpoints, too, not only from the viewpoint of financing. Measures need to be taken, for example, to improve the quality of pharmacotherapy for the elderly.

Ignoring the strategies of the state authorities, a small but prominent group of pharmacists is on the lookout for new models of action emphasising the principles of image building along the lines with daily grocery businesses. Firms known as pharmacy kiosks, for example, have been built within pharmacies. The aim is to set up an arrangement which would allow any freely traded goods, nicotine products, for example, to be sold via a separate firm within the pharmacy. An innovative concept, that of a pharmacy market, has also been launched. Pharmacy chains have been a discussion topic for a long while. These issues are not promoted so much by pharmacies with a lower turnover, but generally by larger-than-medium sized pharmacies.

It feels odd that some pharmacists should want to obscure the professional role of pharmacies by emphasising elements of marketing and competition. Why should they want to do that? The question is genuine, particularly, in view of the fact that health issues have been repeatedly emphasised in the state authorities' health- and medico-political principles. Pharmacists operating within the safeguard of the state authorities' pharmacy licences and regulations are apparently not content with focusing on health, but would like to use any means available to increase their business turnover.

Behind the build-up of chains and the development of kiosk firms and markets, is there a plan to raise the turnover and gain advantage over a situation where the Finnish pharmacy licensing system would be dismantled and the retail sale of medicinal products opened up to competition? Some pharmacists would probably prefer it if Finland were to follow in the footsteps of Norway, where, a couple of years ago, a number of pharmacists were allowed to sell their pharmacies to pharmaceutical wholesale chains, evidently at a good price. I do not believe that this would happen in Finland, irrespective of whatever direction the development of the pharmacy system takes. Few would accept a situation where the licences under state regulation became objects of market speculation. On granting the licences the state has once already guaranteed a relatively good source of business to the pharmacists.

The government programme after the elections next spring ought to contain clear principles and guidelines for the development of pharmacy operations. If the present principles, with their emphases on health policies, nation-wide distribution of medicinal products, cost-effectiveness, pharmaceutical information and professional pharmaceutical services, are to be followed in the end, the result should be that pharmacies maintain their status as pharmacies. Otherwise, the markets will rule, and control of the increase in the sales and consumption of medicinal products will become even more difficult than before.

[1] Strategies for Social Protection 2015. Towards a socially and economically sustainable society. STM 2006

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My observation of an adverse drug reaction

Ceftriaxone and biliary colic in a school girl

A previously healthy 10-year-old girl received a course of amoxicillin in June 2006 for the treatment of redness on the left ear lobe which was suspected of having been due to borreliosis and which subsequently healed well.

A couple of weeks later on 20.7. the girl experienced an onset of headache, neck stiffness, numbness in the right cheek, ear ache and mild fever. On 21.7. the ears were normal and the CRP was under 5 mg/l.

On 24.7. the patient was admitted to hospital owing to left-sided facial nerve paralysis. The clinical picture was that of meningitis. Elevated leukocyte levels in the spinal cord fluid were also indicative of meningitis (mononuclear leucosyte count 222 E^6/l and polymorphonuclear granulocyte count 76 E^6/l). The patient also suffered from an annoying dry cough. There was no ear inflammation present, and this was confirmed on paracentesis.

Suspected possible causes of the facial nerve paralysis and meningitis were 1) borreliosis, because of the previously exhibited redness on the ear lobe, 2) mycoplasma infection on account of the dry cough and spinal cord fluid finding, and 3) herpes virus infection on account of the increased vascular perfusion in the prosence-phalon detected on single photon emission computed tomography (SPECT).

The medication introduced on the day of admission included intravascular aciclovir therapy to treat any herpes infection present, oral roxithromycin for the treatment of any mycoplasma infection, and intravascular ceftriaxone for the treatment of borreliosis (2 g = 77 mg/kg x 1). Aciclovir therapy was withdrawn after a week once the PCR test for herpes in the cerebrospinal fluid was reported to be negative. Roxithromycin therapy was discontinued on 2.8. once elevation of the serum mycoplasma antibodies could no longer be detected.

The girl had consumed French fries in the evening following the sixth dose of ceftriaxone. During the subsequent night, she was struck by a severe attack of pain in the upper abdomen resembling a biliary colic. This was quickly relieved by intravascular administration of metamizol (Litalgin). The severe colicky pain recurred again following a subsequent dose of ceftriaxone, and the treatment of suspected borreliosis was therefore continued by the administration of oral amoxicillin.

An ultrasonography of the upper abdomen on 30.7. revealed an abundance of small gallstones in the gallbladder, which left an acoustic shadow. The gallbladder or biliary ducts did not contain any sludge. The serum alanine transferase and glutamyl transferase values were elevated, indicating a biliary colic. Liver enzyme and bilirubin levels remained normal. The patient's blood count was normal, as were the serum lipid levels.

On the third and fifth days after the withdrawal of ceftriaxone therapy the patient suffered from attacks of pain the upper abdomen following a meal despite her attempts to adhere to a diet designed for biliary patients. On that occasion the pain was located below the left costal arch, which was uncharacteristic for a biliary patient and more resembled gastrointestinal pain. The patient feared she might have another biliary colic and carefully reported all stomach pains in order to receive analgetic medication early enough. Stomach pains did not recur after the introduction of omeprazole therapy.

A biliary and pancreatic duct MRI on 7.8. was aimed at revealing any anomalies in the ducts prior to the surgery which was planned; however, no anomalies were found. The gallstones had disappeared from the gallbladder and were not detected in a subsequent ultrasonography of the upper abdomen on 8.8. Cholelithectomy was consequently cancelled.

Influenzas A and B occurring simultaneously often cause similar symptoms. Influenza virus may also cause brain symptoms with cases of resultant encephalopathy, as described in children in Japan.

The virus antibodies found in the patient' serum disclosed a distinct elevation of the influenza B virus titre, whereas the Borrelia-specific antibodies in the cerebrospinal fluid and serum were found to be negative, as was the PCR detection of Borrelia in the cerebrospinal fluid. The redness on the ear lobe treated at the beginning of the summer was perhaps not caused by Borrelia bacteria after all. The facial nerve paralysis started to improve about two weeks after the manifestation of the symptoms of paralysis.

Borrelia bacteria are readily suspected as being the cause of even undefined redness of the skin, especially if the patient suffers from nervous system symptoms. For the treatment of disseminated Borrelia infection in children a 2-week course of ceftriazone is given, while the alternative therapies considered include doxycycline and amoxicillin. Doxycycline is associated with skin reactions caused by sunlight. As we have seen, our patient had previously received a course of amoxicillin.

The diagnosis of borreliosis requires patience and wise decision-making in the introduction of antibiotic therapies in order to avoid the administration of unnecessary antibiotic treatment and the associated adverse reactions.

Ceftriaxone and biliary symptoms

According to various studies, abnormal ultrasonographic findings have been associated with the use of ceftriaxone in 25–50% of the patients. This type of adverse reaction was first described in children about 20 years ago and later also in adult patients. The patients are often symptom-free and an ultrasonographic finding of "sludge" is made. This occurs on the 9th day of treatment on average, and disappears by itself within a couple of weeks following discontinuation of the therapy. Findings of actual gallstones have been made more rarely.

The adverse drug reaction register of the National Agency for Medicines in Finland has accumulated a total of 27 reports of reactions associated with ceftriaxone; five of these include an adverse reaction associated with the gallbladder. The Table below includes more details about the cases. Four of the reports involved a paediatric patient and one involved a 32-year-old female.

Annikka Kalliokoski

Patient	Indication	Duration of ceftriaxone therapy prior to symptom	Adverse reaction	Ultrasonic finding	Recovery
4-year-old boy	Suspected meningitis	3 days	Gallstones	Biliary duct wall oedema; two large gallstones	Recovered; no gallstones detected on ultrasonography about 1 month later
5-year-old boy	Meningitis	5 days	Gallstones	Gallstones	Not known
10-year-old girl*	Suspected Borrelia, facial nerve paralysis	6 days	Gallstones	Gallstones	Recovered; no gallstones detected on ultrasonography about 1 week later
16-year-old boy	Meningitis	8 days	Biliary pain	Condensation of echo in the gallbladder; a stone or gravel	Recovered; a normal finding on ultrasonography about 2.5 months later
32-year-old female	Pneumonia	2 days after the completion of a 10-day course	Upper abdominal pain	Gravel at the bottom of the gallbladder. Same finding on MRI	Recovered

* the patient in the case history

Improved functionality of the medicinal products database

The National Agency for Medicines (NAM) in Finland has reorganised its drug information services by improving the search facility of summaries of product characteristics (SPC) and package leaflets (PL) on its website.

On its website NAM has since spring 2002 published SPCs and PLs of marketing authorisations approved by it via the national or mutual recognition procedure. In 2003 it became mandatory for the marketing authorisation holders to submit their texts for publication electronically to NAM. The website of NAM nowadays includes about 4,400 published SPCs and 3,300 PLs. In August, technical changes were made in the services to improve their ease of use.

The search functions have been improved, together with other reorganisation, and plenty of alternatives to vary them are offered. Anybody looking for information can write either a word or part of a word in all the search fields and get a combined search result. The search function is initiated simply by pressing Enter even if several search conditions are given.

Owing to the technical improvements made it has also been possible to simplify the publication process at NAM, and the frequency of updating of SPCs and PLs on the website can be increased in future as a result.

In addition to the improved ease of use, the marketing authorisation holders can also benefit from the reorganisation in the form of simplified instructions for the composing of SPCs. The new instructions for preparing SPCs are available on the website of NAM. The instructions for preparing package leaflets have not changed.

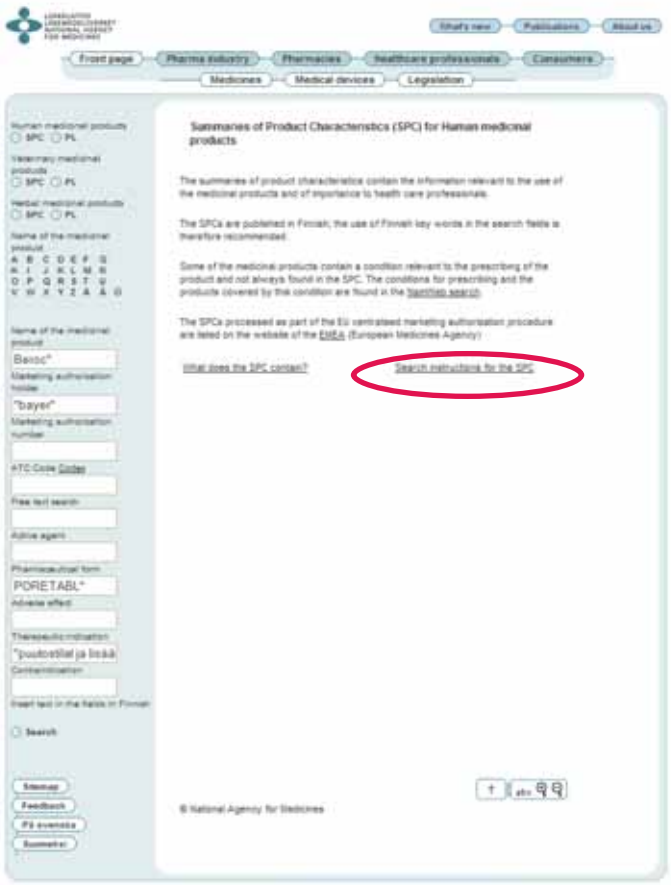
NAM services relating to SPCs and PLs provide the facilities to search for the SPCs in Finnish and for the PLs in Finnish and Swedish of marketing authorisations approved via both the national and the mutual recognition procedures. The SPCs and PLs of human, veterinary and herbal medicinal products are found separately. The service is available at: http://www.laakelaitos.fi/laaketieto/valmisteyhteenvedot/index.html

The service is also available on NAM's English and Swedish webpages at: http://www.nam.fi/english/medicines/spc_pl_summaries/index.html http://www.nam.fi/svenska/lakemedel/spc_pl/index.html

The documents relating to medicinal products with approved marketing authorisation via the centralised procedure are available at the EMEA website: http://www.emea.europa.eu/htms/human/epar/a-zepar.htm

This website also includes the SPCs and PLs in Finnish among 19 European languages.

Krista Leppänen



Translation Mervi Moisander

Finnish Statistics on Medicines 2005 published

The book Finnish Statistics on Medicines 2005 by the National Agency for Medicines and Social Insurance Institute has been published.

In 2005, total sales of medicines in Finland were about EUR 2.4 billion. The growth of medicinal costs was slower than before the beginning of generic substitution. The biggest part, 72%, was attributable to prescription-only medicines in outpatient care. In this group, the growth of sales was 3% less than in 2004. Social Insurance Institution paid reimbursements of medicines to 3.3 million people in Finland, altogether EUR 1.1 billion, which was 6.1 % more than in the previous year.

Drug statistics can also be found on the internet: www.nam.fi/english/medicines/drug consumption/
and
www.kela.fi/in/internet/english.nsf/statistics.

The publication can be subscribed from the address *tilaukset@nam.fi* or by phone: +358 (9) 47 334 289.