What's Up in Urology Journal, Winter 2011?

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Urology for People is a section in the *Urology Journal* for providing people with a summary of what is published in this journal and describing urological entities in a simple language.

Important Note. The findings in medical papers are usually not directly applicable in clinical practice and patients should consult their physicians before any utilization of the results of medical studies.

TAPEWORMS AND HYDATID DISEASE

The term 'tapeworm' explains a group of parasitic worms that live in the gut of animals, including humans. These infestations are found worldwide. They can be caused when humans consume raw or undercooked animal products that contain worm larvae. Humans usually become infested after close contact with animals like cats and dogs. The most sober locally acquired form of tapeworm infestation is caused by the hydatid tapeworm (Echinococcus granulosus), which can infect dogs and dingoes, particularly in sheep farming areas. In the typical dog-sheep cycle, tapeworm eggs are passed in the feces of an infected dog and may subsequently be ingested by grazing sheep. They hatch into embryos in the intestine, break the intestinal lining, and are then picked up and carried by blood throughout the body to major filtering organs, mainly the liver and/or the lungs. After the developing embryos confine in a specific organ or site, they alter and develop into larval echinococcal cysts, in which many tiny tapeworm heads are produced via asexual reproduction. Because humans play the same role of intermediate hosts in the tapeworm life cycle as sheep, humans also become infected by ingesting tapeworm eggs passed from an infected carnivore. This takes place most frequently when individuals handle or contact infected dogs or other infected carnivores or by mistake ingest food or drink contaminated with fecal material containing tapeworm eggs.

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KIDNEY STONES

Kidney stones are a common cause of blood in the urine and often severe pain in the abdomen, the flank, or the groin. Kidney stones have beset humans for centuries. Scientists have found evidence of kidney stones in a 7000-year-old Egyptian mummy. It is estimated that one out of every ten people will develop stones in the urinary tract at some point in their lives. Each year, people make almost three million visits to medical centers and more than half a million people go to emergency departments for kidney stone problems. Most urinary stones develop in people at 20 to 45 years of age, and those who are susceptible to multiple attacks of kidney stones (active stone formers) usually develop their first stones during the second or third decades of life. If you have a kidney stone, you may already know how painful it can be. Most kidney stones pass out of the body without help from a physician. But sometimes a stone will not pass; it may even get larger. Your doctor can help.

You should seek help if you have any of the following signs:

- Severe pain in your back or side that will not subside
- Bloody urine
- Fever and chills
- Nausea and vomiting
- Urine that smells bad or appears cloudy
- A burning perception when you urinate

Most stones leave the kidney and travel through

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the urinary tract when they are still small enough to pass easily out of the body. But larger stones may be trapped in the tubes that carry urine from the kidney to the bladder (ureters). This can cause extreme pain and possibly block the urine from flowing to the bladder and out of the body. The pain may ease when the stone no longer blocks the flow of urine, and it often ceases when the stone passes into the bladder. Medical or surgical treatment is often necessary for larger stones.

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CANCER OF THE TESTIS

Testis tumors account for approximately 2% of all malignant cancers in men and make up to 10% of all malignant diseases occurring within the male genitourinary system. Most of these cancers occur in three age groups; infancy, late adolescence, and

early adulthood. Cancer usually occurs in only one testis and in less than 5%, it may happen in both testicles. Some tumors grow rapidly, others more slowly. Almost all tumors cause symptoms when they get large enough. When pain or a mass develops in the testicle or scrotum, one should be evaluated by a physician to rule out infection or, less commonly, a tumor. In patients with persistent pain, despite appropriate treatment, an ultrasonography is usually recommended to rule out a tumor. Because of its high cure rate, testicular tumor is considered the model of success for cancer treatment. In 1970, 90% of men with metastatic cancer of the testis died of the disease. By 1990, that figure had almost reversed; nearly 90% of men with metastatic testicular tumor were cured.

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