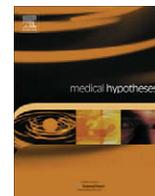




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# Medical Hypotheses

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## Correspondence

### Is gallium nitrate an effective kidney stone, calcified uterine fibroid, atherosclerosis and cataract anti-nanobacteria treatment? A case history and hypothesis

Letter to the editor

Sir,

In my 2008 article in *Medical Hypotheses* titled “A hypothesis for anti-nanobacteria effects of gallium with observations from treating kidney disease” (1), I showed that gallium nitrate had benefit in treating kidney pain, perhaps by anti-nanobacteria action. I reported that oral gallium nitrate (120 mg gallium per day), mixed with large amounts of drinking water (1% gallium nitrate) was used to treat chronic, treatment-resistant kidney stone pain and urinary tract bleeding in a 110 lb female nurse. On the third day of gallium mineral water treatment, her urine appeared snow white, thick (rope-like), basic and suggestive of a calcific crystalline nature. After release of the white urine, it returned to normal in color, viscosity and pH. Kidney pain was absent, and there was no further evidence of blood in the urine. There were no treatment side effects or sequela. Gallium re-treatment was necessary after one year of absence of pain. I briefly reviewed the nanobacteria literature and reported that gallium had anti-bacterial action to all iron-dependent bacteria, thus I hypothesized a gallium – anti-nanobacteria linkage.

I now report another case in support of my gallium – anti-nanobacteria hypothesis. In this case, a toothless, legally blind, 61-year old female self-treated with gallium nitrate (200 mg gallium/day). She had been a kidney stone former for over 50-years. At the time of gallium treatment she had severe bilateral kidney stones, calcified uterine fibroids, atherosclerosis and cataracts. She had multiple cardiac surgeries for atherosclerosis, and she had 10 cardiac stents. After a month of gallium nitrate treatment using widespread topical application of 42% gallium nitrate aqueous solutions and daily oral ingestion of 1% gallium nitrate aqueous solutions, radiographs of both kidneys and the uterus were negative for stones and calcified fibroids and her kidney pain was absent. A radiograph showed non-coalesced, movable, dust-like particles in the kidneys, perhaps from disassociated stones. She did not experience the white rope-like urine previously reported. Cardiac surgery also showed that one artery that had been 98% occluded pre-gallium had been improved to 70% occluded post-gallium. All stents were completely clear with no buildup. She also observed that kidney stones re-coalesced if she did not take gallium, suggesting a treatment rather than a cure. Perhaps treatment was slightly harmful to the kidneys since blood occasionally appeared in the urine, which stopped when gallium was temporarily discontinued. She associated topical application of 42% gallium nitrate to her face with improvement in her vision perhaps by removal of cataracts. She further suggested that topical gallium treatment, which felt slightly oily on her skin, was preferable to oral treat-

ment in terms of safety and efficacy, even though topical treatment dried, stung and irritated her skin and severely stung and dried the eyes if it contacted them.

Nanobacteria, much smaller than common bacteria, have been reported to exist in urine, and by precipitating calcium and other minerals into carbonate apatite around themselves, induce the formation of surrounding kidney stones and many other pathological calcifications. Nanobacteria-like structures have also been believed shown in blood, within arteries, aortic aneurysms, and cardiac valves. Gallium is bacteriostatic to all iron-dependent bacteria and has potent anti-inflammatory, anticancer and anti-hypercalcemic properties, and it readily reverses osteoporosis (1). Regardless of the actual action of gallium, it remained helpful to these two women.

Gallium is harmful to kidneys, especially as an IV bolus, unless hyper-hydration is provided [1–4]. Oral gallium nitrate must always be taken with large amounts of water, at least as dilute as a 1% solution, a concentration that has been safely used in horses for many years to treat navicular disease (4). This dilution is highly astringent in taste while substantially more concentrated gallium nitrate solutions produce severe, instant oral pain. Consequently, dosage- and dilution-related caution is advised in the treatment of nanobacteria-induced illnesses with gallium nitrate solutions.

Although the dosages and dilutions used in these two anecdotes appeared safe and effective to these women, I have no formal information concerning appropriate human dosage or the safety of treatment of these calcific conditions with gallium. I strongly advise against self-treatment, although I do recommend formal laboratory and clinical research.

The gallium nitrate used in both cases was a special higher pH (pH 1.0) product made by Recapture Metals of Blanding, Utah, USA, a product believed to release substantial free, ionic gallium(III). Generic gallium nitrate has been suggested to be poorly bioavailable, but these observations and separately those from horses (4) do not support such incorrect, perhaps commercial, contention.

These two anecdotal observations must remain hypothetical of gallium's role in disassociating calcifications induced by nanobacteria until laboratory tests and dose-ranging clinical trials have been performed.

## References

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