

Urinalysis: a physicochemical and microscopic forgotten art

It is generally recognized that not only are microscopic urine examinations not nearly ordered enough, but that those needed by doctors are held up for mass screening and then quickly and routinely quantified by apathetic laboratory personnel performing a mechanical counting task. A half sheet of paper is returned to the doctor with a series of numbers or checkmarks punctuated by people with minimal education and even less skill. In addition to an already poor clinical attitude toward microscopic urinary information - the little time for communication between doctor and lab technicians have relegated this already compromised screening to an even lower status. The fact that most doctors do next to nothing about abnormal results proves how little they value the clinical significance of what the body puts out to waste.

A "routine" urine examination should consist of measuring the chemical aspects and taking a very close look at the microscopic sedimentation under different lights – not just bright field. These complex microscopic and physicochemical processes should not be relegated to someone who is indifferent or unfamiliar with the donor. In fact, the screening should ideally be performed by a trained practitioner who is not only intimately familiar with microscopic techniques but family background, current health history and biochemistry as well as any pertinent physiological and nutritional parameters. There is a great deal of satisfaction when this valuable test is reliably accurate and interpreted by a clinical microscopist who is sensitive to its many nuances.

Because of its concentration during the night the first morning specimen is most favorable for sediment evaluation. There are several ways to collect urine but unless there is a very special need elaborate procedures are superfluous. "Contamination" by vaginal, vulvar or prostatic cells is much like a drugs' "side effect" – it naturally belongs - but is not necessarily wanted. A good clinical microscopist is capable of seeing the "contamination" and may be able to recognize pathological aspects of the various "extraneous" cells. There is no such thing as "purity" or a "clean catch" in Nature. Rapid sequential specimens give much more accurate information than the occasional single one.

Pushing younger, constantly regenerating cells to the surface, exercise, proteolytic enzymes, bacterial cytolysins - not to mention external pressure or massage - may exacerbate cellular breakdown in the bladder – even before exfoliation occurs. In both gross and microscopic hematuria we add a layer of examination that presents us with enormous implications: not necessarily to the origin of the red cells but as to their content. The microbes in red blood cells found in urine have a keen ability to evade all known diagnostic tests. These cells sometimes act as a Petri dish for spirochetes and other highly pathogenic microbes – and might point us to reasons for the disintegration of the human host. Alcohol, refrigeration, fixatives, chemical preservatives and other tricks to minimize cellular degeneration should only be used when absolutely necessary as they affect the tonicity as well as the many cell-wall deficient prokaryotic pleomorphic micro-organisms - and rob us of what we could be learning.

When looking at urine thru dark-field, interference, polarization or phase-contrast we might realize that some of what we now call “contaminants” - are in reality novel microbes that despite their resilience and unusual hardy properties – are highly polymorphic and able to survive and thrive in extreme habitats. After culturing urine, nano-bacteria were found in 90% of people with stones. Elementary particles, DNA “packages” and other life-changing but obscure cellular “components” may have an uncanny relationship to major degenerative diseases – including cancer. Chronic, low-grade inflammation nearly always provides a unique situation that favors mutation and metastases. Microscopic urine analysis may come to the forefront in its ability to provide answers that have previously proved fruitless. The consequences will be profound.

Dr. Van Beveren, Ph.D.CNS, CNC.
Princeton Health Integration Center
609-924-7337 (Phone)
609-924-7828 (Fax)
www.princetonhic.com