

by Casper through his work with the ureteral catheter, a point soon recognized by other urologists and physiologists, viz., that in health both kidneys secrete urines which in all important points, such as acidity, specific gravity, amount of urea, chlorides and other salts and in their freezing point are practically identical, and that such kidneys excreted indigocarmin and secreted phlorizin as sugar in equal quantities and within the same period of time.

This was established not only by clinical experience after collection of the urine from the two kidneys simultaneously in a large number of cases, but also by animal experiment. We were enabled, therefore, by comparing the urine of one kidney with that of the other to determine whether a kidney was or was not diseased and to what extent the disease affected its function. A simple example will suffice. The first case is that of a woman who had an abdominal tumor. Examination was undertaken in order to exclude the kidney as the organ affected. The bladder and right and left urines showed the following values:

	Common or bladder Urine	Right	Left
Reaction	Acid	Acid	Acid
Sp. G.	1012	(1) 1015+ (2) 1018	(1) 1015 (2) 1018
Sediment	clear	clear	clear
Urea	—	1%	.8%
Alb.	0	0	0
Sugar	—	.25%	.25%
Δ	—	—	—
Mx.	—	Epithelium	—
Culture	No growth	occasional r.b.c.	do

Both right and left urines were practically identical. Both kidneys are sound.

In the following example the values are very different. This was a case of tuberculosis, acute and rather extensive.

H. ♂ 17.09	Common	Right	Left
Amount	—	10 c.c. in 30'	6 c.c. in 30'
Reaction	Acid	Acid	Acid
Sp. G.	1016	1005	1020
Appearance	pale, turbid	pale, turbid	dark
Urea	—	0.1%	1.0%
Albumen	+	+	+
Sugar	—	0	2%
Mx.	pus	pus	epithelium
	T. bacilli	Many tubercle bacilli	r.b.c.

From this not only is the diagnosis clear, but we also know that the right kidney is doing but little to aid in the renal excretion of the body, as we have only to compare its work with that of the left, which shows no sign of disease.

This then is a tremendous aid, and when, as in the above example, we find no evidence of disease in the better kidney such as pus cells or blood,