

Colonic Carcinoma Invading the Kidney: Case Reports

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Abstract

Renal metastasis from primary colon cancer is very rare. By 2011, 11 cases were reported in the medical literature of colonic adenocarcinoma metastatic to the kidney. In a 51-year-old female in USA, the report was of "extraluminal colonic adenocarcinoma which directly invaded into the kidney." Therefore, the author presents 2 cases of colon cancer spreading to the kidney from the Igbo ethnic group in Nigeria. A clarification of the difference between direct extension and *metastasis* is deemed to be essential.

Keywords: Colon; Cancer; Metastasis; Kidney; Igbos; Nigeria;

Introduction

Renal metastasis from primary colon cancer is so rare that, from USA, Nelson's associates reported "a unique case of a 51-year-old female with extra luminal colonic adenocarcinoma which directly invaded into the kidney." Therefore, the author describes two such cases among 50-year-old females who belong to the Igbo ethnic group [1,2]. This was facilitated by the advice of a Birmingham (UK) group [3]. As they had put it, the establishment of a histopathology data pool is fruitful epidemiologically. Concerning the present cases, being the pioneer pathologist at the Regional Pathology Laboratory established at Enugu by the Government, I was in the position to observe such obscure relationships in cancer metastasis [4].

Investigation

I encouraged physicians working among the Igbo ethnic group in South Eastern Nigeria to send to me surgical specimens provided they were preserved in formol-saline and were accompanied by well filled Request Forms. Having kept personal copies of all the Reports, it was relatively easy to amass materials since 1970. Hence, the 2 cases, which were found to exhibit both colonic and renal growths, are deemed to be worthy of documentation.

Case Reports

1. NC, a 50-year-old female consulted Dr. Attah at the University of Nigeria Teaching Hospital, Enugu, for a painful left flank of a year's duration. There was weight loss. An ovoid,

firm 10 x 14 renal mass was noted. X-Ray showed non functional kidney. Ultra sound revealed cancer invasion of the sigmoid colon and part of the descending colon. Nephrectomy and colectomy were carried out.

The specimen consisted of a 10 x 5 cm kidney and 40 cm colon, both being fused centrally by a 10 x 8 x 7 cm hemorrhagic firm mass. On section, the mass was polypoid and also cystic and contained soft discolored materials. Part of the kidney and bowel were infiltrated by tumor tissue. On microscopy, well differentiated carcinoma without clear cell changes could be made out, indicating that the renal growth was a secondary.

2. IJ, a 50-year-old female, consulted Dr. Nkire at the Eastern Nigeria Medical Center, Enugu, on account of a mass in the right flank since 2 years. Nausea, abdominal pain and weight loss were noteworthy. At laparotomy, a 5 x 4 cm firm tumor of the ascending colon was extending from the ileocecal junction up to 2 cm along the ascending colon. It partly narrowed the lumen. The kidney measured 10 x 6 x 1.2 cm. On section, a suspicious area 2 cm across was noted at its proximal end. On microscopy, the colonic growth was a well differentiated, tall columnar, mucin producing carcinoma. It invaded the coats and reached beyond the serosa. The kidney was involved, the growth compressing its parenchyma. Colonic adenocarcinoma was diagnosed with renal metastasis.

Discussion

Turkish authors documented a patient with left colon cancer and isolated metastasis to the right kidney [5]. They called it a "very rare event" and attributed it to blood-borne metastasis. Other examples were found on searching the literature [6,7].

Elsewhere [8], I reviewed the wide problem of "hematogenous metastasis" from the historical angle actually; I also dealt with the fundamental differences between direct spread and metastatic spread [9]. In this context, there is the relative fewness of the metastasis to the kidney and spleen [10,11].

I am persuaded that there is need to recognize that what is seemingly direct spread is actually metastatic spread. A good example is the problem of lymph node cum pancreas relationship which I explained with lung cancer spreading to the pancreas

and its abutting lymph nodes [12]. This was possible because of employing the mono-block formalin-fixation method for investigating cancer metastasis [13].

Conclusion

In conclusion, Lithuanian authors found that the distant metastases from colorectal cancer most frequently spread to the liver and lungs, metastasis to be kidney being extremely rare [14]. Therefore, this case adds to the world literature of this curious combination. Incidentally, the two cases illustrated here are typical as regards (a) seemingly mere contiguity and (b) strictly sound metastasis.

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