Hypothesis on the swiss-roll method of investigating cancer necrosis during metastasis in the human thoracic duct.

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Editorial

By 1798, the great Sir Astley Cooper adverted to the importance of the thoracic duct regarding the "human economy." Of late, research on it has been much hampered on account of its very length of some 45 cm. Therefore, it is hypothesized that coiling it in Swiss-roll fashion and processing it as a single wax block will facilitate important observations being made on the cancer cells which were in transit at the moment of death. In particular, reference is made to the inherent occurrences of necrosis, a phenomenon whose intrinsic mechanism, if definitely discovered, is likely to promote the expected target therapy of cancer.

The great Sir Astley Cooper [1] appreciated back in 1798 the importance of the thoracic duct as regards the "human economy." Perhaps, part of the prevailing problem has been the sheer length of this curious conduit. Thus, it has been examined either as cross sections [2] or visually lengthwise [3]. On my part, because of having introduced "The Mono-Block Formalin-Fixation Method" of investigating lung cancer [4], this 45 cm long organ could be obtained whole. Next, by coiling it in Swiss-roll fashion [5], its preparation as the usual wax block led to the panoramic observation of undoubted cancer cells which were in transit within it at the moment of death! In particular, on examining 40 lung cancer specimens brought from Scotland to Nigeria, I came to the following conclusion: "Necrosis of the cancer cells was apparent in 3 cases, but it was clear that this had occurred in association with large aggregates of the malignant cells and that among such aggregated cells red blood corpuscles abounded." Accordingly, this paper hypothesizes on the need for a wider approach to using the Swiss-roll technique to unravel the hidden treasures constituted by the natural necrosis of cancer cells which daily metastasize in the human thoracic duct.

Firstly, it was shown above that lung cancer can provide the pabulum necessary for executing research on the circulating cancer cells present in the thoracic duct.

Secondly, all other organs should be brought into the picture. Indeed, it may well be that higher yields of necrotic materials may crop up here or there.

Thirdly, the beauty of this proposition must be appreciated in terms of the role of the "patient consent" whose importance is of even historical dimensions [6].

Fourthly, expert cannulation comes in practically. Actually, this has been used in such a useful practice as the embolization of the cisterna chyli in treatment of chylous ascites [7].

Fifthly, intravital video microscopy should clinch matters [8], since that seeing ought to help in believing.

Finally, the hypothesis itself rests on obtaining from the human thoracic ducts the necessary two scientific subsets consisting of both lively and necrotizing cancer cells [9]. Surely, these two-fold subsets suffice in obtaining enough evidence for translational research. In this context, [10] I have gingerly named the expected result as the "Erythrocyte Associated Necrosis Factor" [EANF].

Moreover, with a multitude of papers [11-18], I have shown that its explanatory power answers the several anomalies long apparent in lung cancer metastases. In fact, as Melville Arnott stated in his 1955 Harveian Oration [19], "Scientific principle requires us to be ever watchful for the unexpected and anomalous; for these may imply imperfections in our concepts and are often a stimulus to discovery."

Conclusion

Cancer has long as been held as "man's enemy," which requires a "war" that must be won [20]. In particular, now that translational research is being richly endowed by Governments [21], the expected breakthrough should appear sooner than later! Of course, this will ultimately be enhanced by concentrated pharmaceutical endeavors [22].

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