
We are concerned about the use of the terms “dysplastic crypt foci” or “foci of dysplastic crypts (FDC)” in the recent paper by Caderni et al. (1). These authors used the term dysplastic crypt foci to describe what we and others (2–10) have referred to as aberrant crypts or aberrant crypt foci in the colons of both rodents and humans. Caderni et al. (1) acknowledge using the same method that one (2) of us first described to identify aberrant crypts in the colons of carcinogen-treated rodents. In “Materials and Methods,” Caderni et al. (1) state, “unlike these conditions dysplastic foci... are easily visualized... since dysplastic crypts have larger, often elongated openings and a thicker lining of epithelial cells compared to normal crypts.” McLellan et al. (3) had previously stated that, “foci of AC [aberrant crypts] are easily recognized by their increased size, pericryptal area, and thicker epithelial lining.” The methylene blue-stained unsectioned colon allows visualization of the topographic view of the colonic mucosa and the detection of the abnormalities listed in the previous two sentences; it is not informative regarding the histological features of the mucosa.

“Dysplasia... in common usage... is applied to either epithelial or mesenchymal cells, principally the former, that have undergone proliferation and atypical cytological alterations involving cell size, shape, and organization (11).” The use of the term dysplastic crypt foci to describe these abnormal crypts would be valid only if the authors had examined histologically all of the methylene blue-identified lesions and found dysplasia in all of them. Since the term dysplasia, as applied to the colon, represents specific pathological alterations the identification of which depends upon histopathological analysis, the use of this term for all aberrant crypts confers a property on aberrant crypts that is not valid for all of them.

Caderni et al. (1) do not give a reason for referring to the aberrant crypts identified by the methylene blue technique as dysplastic crypts. In the first description (2) of this method, one of us speculated that the crypts identified with methylene blue might be dysplastic since “transverse sections of the colons reveal the presence of dysplastic crypts.” As pointed out in this publication, it is “quite difficult [and may be impossible] to obtain a good representative transverse section of the complete tissue” to allow the entire colon to be evaluated for dysplastic crypts in histological sections. In all of our publications and those of others that have used this technique, e.g., (Refs. 2–10), the abnormal lesions have been referred to as aberrant crypts. ACF1 are biologically heterogeneous, and work from several laboratories (7–10) has clearly demonstrated that some, but not all, aberrant crypts identified with the methylene blue method are dysplastic. The induction and growth characteristics reported for ACF (2–8) suggest that topographic quantification of ACF for total number and crypt multiplicity may be an important end point in identifying potential modulators of colon carcinogenesis. However, a systematic evaluation of the importance of various growth and histological characteristics of ACF and their relationship to actual incidence of neoplasia is lacking.

We believe that it is important to clarify the difference between ACF and histologically proven dysplastic crypts. The crypts identified by Caderni et al. (1) may or may not be dysplastic. We hope that this clarification will be useful for the readers of Cancer Research and for those who are using the topographical approach to quantify these early lesions that appear during colon carcinogenesis. We strongly recommend that the term ACF be used in future publications that refer to the use of this topographical method and that the term dysplastic crypts be reserved for those crypts in which dysplasia has been demonstrated by the usual histological criteria. This distinction in terminology will help to avoid confusion about the nature of these lesions.

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