ABSTRACT

Our investigation reveals that the expression of AQP8 is indicative of normal colonic epithelial cells, which may indicate their involvement in fluid transport within the colon.

INTRODUCTION

In the late 1980s and early 1990s, the development of a novel immunosuppressive drug, the compound aquaporin 8 (AQ8), was reported to be capable of inhibiting the expression of two proteins involved in the development of colorectal tumors. However, the mechanism by which AQ8 inhibited the expression of these two proteins was not established. We aimed to determine whether AQ8 could act as an immunomodulator and to determine whether AQ8 could be used therapeutically as an immune modulator.

Methods:

We used a mouse model of colorectal cancer (MCC) to investigate the role of AQ8 in colorectal cancer development. MCC was induced by exposure to low doses of AQ8 or an AQ The expression of several genes is known to be involved in colorectal carcinogenesis, including the water channel protein AQP8.

CONCLUSION

We hypothesize that AQP8 plays a role in water resorption in the human colon, as demonstrated by our analysis of human columnar surface epithelial cells.