

## Ekspresi Cdx2 pada esofagus barret dengan metaplasia kolumnar dan intestinal = The expression of Cdx2 in barrett s esophagus with columnar and intestinal metaplasia

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### Abstrak

**ABSTRAK**  
Latar Belakang : Esofagus Barrett (EB) merupakan lesi premaligna adenokarsinoma esofagus yang meningkatkan risiko menjadi adenokarsinoma sebesar 30-125 kali. EB didefinisikan sebagai perubahan epitel esofagus normal digantikan oleh epitel kolumnar metaplastik, meskipun secara universal belum ada kesepakatan definisi. Kehadiran sel goblet (metaplasia intestinal) sebagai penanda EB hingga saat ini masih kontroversi. CDX2 adalah gen regulator transkripsi dalam diferensiasi intestinal dan diketahui terekspresi pada EB. Studi mengenai ekspresi protein Cdx2 menggunakan pulasan imunohistokimia pada EB dengan metaplasia kolumnar (MK) maupun metaplasia intestinal (MI) masih terbatas. Penelitian ini bertujuan untuk mengetahui ekspresi Cdx2 pada EB dengan MK dan MI serta hubungannya dengan derajat keparahan endoskopi.

Bahan dan cara : Dilakukan pulasan imunohistokimia Cdx2 pada 38 kasus dari 19 pasien EB dengan MK dan 19 dengan MI. Penilaian dilakukan dengan menghitung skor pulasan yang menilai intensitas pulasan dan persentase area positif.

Imunoekspresi Cdx2 dinilai positif apabila skor pulasan  $\geq 0,1$ .

Hasil : Ekspresi Cdx2 ditemukan pada 12 (63,16%) kasus MK dan pada 16 (84,21%) kasus MI. Didapatkan nilai median kelompok MK sebesar 0,15 dan MI sebesar 0,58. Terdapat perbedaan bermakna antara skor Cdx2 pada kelompok MK dan MI ( $p=0,05$ ). Diperoleh korelasi bermakna antara kehadiran MI dan skor Cdx2 dengan nilai korelasi positif lemah (0,322). Tidak terdapat hubungan bermakna antara derajat keparahan endoskopi dengan jenis metaplasia ( $p=0,794$ ), derajat inflamasi berdasarkan histopatologik ( $p=0,300$ ) maupun dengan positivitas Cdx2 ( $p=0,278$ ).

Kesimpulan : Hasil penelitian menunjukkan ekspresi Cdx2 dapat digunakan sebagai penanda kehadiran MI pada kasus EB dengan MK tanpa gambaran sel goblet.

**ABSTRACT**  
Background : Barrett's Esophagus (BE) is premalignant lesion of the esophageal adenocarcinoma that increases risk of adenocarcinoma as much as 30-125 times. BE is defined as normal esophageal epithelium that is changed by columnar epithelial metaplasia. Nevertheless, there is no general agreement about its definition yet. Currently, the presence of goblet cell (intestinal metaplasia) as an indicator of BE is still controversial. Cdx2 is a regulator transcript gene in intestinal differentiation and is known expressed in BE. Study about Cdx2 protein expression using immunohistochemistry staining in BE with columnar metaplasia (CM) or intestinal metaplasia (IM) is still limited. This research is intended to find Cdx2

expression in BE with CM and IM as well as its relationship with the severity degree of endoscopy.

**Material and Method :** Immunohistochemistry staining of Cdx2 was performed on 38 cases (i.e. each 19 BE patients with CM and IM). The assessment was evaluated by calculating staining score that assessed staining intensity and percentage of positive area. Immunoexpression was considered as positive if staining score  $\geq 0.1$ .

**Result :** Cdx2 expression was found on 12 CM patients (63,16%) and 16 IM patients (84,21%). Median scores of 0,15 and 0,58 were obtained from CM and IM groups, respectively. There was a significant difference between Cdx2 score of CM group and IM group ( $p = 0,05$ ). Significant correlation between the presence of IM and Cdx2 score was weak positive (0,322). There was no relationship between severity degree of endoscopy with types of metaplasia ( $p=0,794$ ), histopathologic inflammation degree ( $p=0,300$ ) or Cdx2 positivity ( $p=0,278$ ).

**Conclusion :** This study shows that Cdx2 expression can be used an indicator of IM presence on EB cases with CM without goblet cell appearance.;**Background :** Barrett's Esophagus (BE) is premalignan lesion of the esophageal

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