Introduction Barretts oesophagus (BO) with low-grade dysplasia (LGD) can progress to high-grade dysplasia (HGD) and oesophageal adenocarcinoma (OMC). For this reason confirmed LGD has been recently approved by NICE as an indication for radiofrequency ablation (RFA). We aimed to evaluate the progression rate among LGD patients undergoing RFA and thus corroborate the importance of the ablative treatment in this scenario.

Methods Review of the RFA database in a tertiary referral centre over the period 2008–2018 was done. Demographics, BO characteristics and RFA treatment features were collected and included for analysis. Patients with an indication for RFA other than BO with LGD were excluded. Only endoscopies done during the RFA or exit-biopsies period were taken into consideration.

Results 41 patients were included for analysis: 31 males (75.6%), mean age 66 (SD=10), median BO length 6.6 (SD=3.2). In 34 patients (82.9%) LGD was detected through random biopsies and was confirmed by 2 expert pathologists within an interval of 6 months. 7 patients (17.1%) presenting a visible lesion were diagnosed following endoscopic mucosal resection (EMR).

11 patients (26.8%) completed the RFA treatment with a median number of 2.5 (SD=1) sessions achieving complete eradication of dysplasia and intestinal metaplasia. 1 patient (2.3%) abandoned the treatment after developing severe comorbidities. 12 patients (29.2%) who finished the RFA were awaiting exit-biopsies and 17 (41.4%) still continuing ablative treatment.

LGD progression was detected in 4 patients (9.75%) with 3 confirmed cases of HGD and one OAC. The median time for progression was 16.7 (SD=4.5) months since the confirmed diagnosis. The most common location was the gastro-oesophageal junction, GOJ (75%). 3 of these cases, including the OAC, presented with a visible lesion and were treated endoscopically (2 EMR; 1 endoscopic submucosal dissection, ESD). 2 additional RFA sessions were applied to the GOJ progression presented as non-visible lesion.

Conclusions The progression rate among BO patients with confirmed LGD undergoing RFA in our series was 9.75%. This data emphasises the high risk of progression presented by this subgroup and supports its indication for ablative treatment.