history in pack years is 39.5. Fifty two (67.5%) patients were classified as low risk, 14 (18.2%) as intermediate risk, and 11 (14.3%) as high risk. The mean days of hospital stay is 10.4. 72 patients (93.5%) were discharged improved, and 5 (6.5%) patients died. Those who died had a DECAF score >2, showing a statistically significant relationship between DECAF score and mortality (P = .00002). A DECAF Score (>2) has 100% sensitivity, 91.67% specificity, AUC of 0.958, PPV is 45.46 and NPV of 100.00.

Conclusion: The DECAF Score which incorporates indices routinely available at the time of hospital admission, is an effective clinical tool that can risk stratify and predict mortality in patients hospitalized with an exacerbation of COPD.

AP108

QUALITY OF LIFE OF PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE BASED ON CLINICAL PHENOTYPES

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Background and Aims: Spanish chronic obstructive pulmonary disease (COPD) guideline classifies COPD into 4 clinical phenotypes: non-exacerbator (A), asthma-COPD overlap (B), exacerbator with emphysema (C) and exacerbator with bronchitis (D).

Methods: A cross-sectional study of quality of life (QOL) based on COPD phenotypes utilizing St George's Respiratory Questionnaire (SGRQ-c) conducted in University Malaya Medical Center from 1 June 2017 – 31 May 2018.

Table 1. Demographic, clinical characteristic and SGRQ-c score according to clinical phenotypes.

Characteristics	COPD Phenotypes (n, %)				
	A 54 (28.6)	B 25 (13.2)	C 35 (18.5)	D 75 (39.7)	*p value
Age (years)	74.1±8.1	70.0±13.1	72.7±8.7	70.7±9.2	0.151
Gender (n, %) Male Female	 50 (92.6) 4 (7.4)	 23 (92.0) 2 (8.0)	 32 (91.4) 3 (8.6)	 70 (93.3%) 5 (6.7%)	 0.986
Ethic (n, %) Malay Chinese Indian	 19 (35.2) 27 (50.0) 8 (14.8)	 10 (40.0) 9 (36.0) 6 (24.0)	 12 (34.3) 18 (51.4) 5 (14.3)	 32 (42.7) 30 (40.0) 13(17.3)	 0.734
Smoking status (n, %) Current Previous	 16 (29.6) 38 (70.4)	 11 (44.0) 14 (56.0)	 16 (45.7) 19 (54.3)	 21 (28.0) 54 (72.0)	 0.333
MMRC (n, %) 0 -1 2-4	 23 (42.6) 31 (57.4)	 8 (32.0) 17 (68.0)	 16 (45.7) 19 (54.3)	 12 (16.0) 63 (84.0)	 0.003
GOLD class (n, %) 1-2 3-4	 33 (61.1) 21 (38.9)	 15 (60.0) 10 (40.0)	 16 (45.7) 19 (54.3)	 29 (38.7) 46 (61.3)	 0.001
SGRQ-c score Symptoms Activities Impact Total	 36.8±19.9 48.9±32.5 40.9±20.1 42.6±20.1	 59.2±25.1 58.0±34.6 44.8±32.1 51.5±25.9	 43.3±23.6 56.8±27.8 36.9±24.8 44.0+21.4	 61.7±20.4 70.5±25.1 56.0±27.2 61.5±20.9	 <0.001 0.001 0.001 <0.001

*Chi-square for categorical variables; ANOVA test for means of continuous variables.

Results: Of 220 patients, 189 patients with post bronchodilator force expiratory volume in 1 second (FEV1)/force vital capacity (FVC) of <0.70 were recruited. Their demographic, clinical characteristics and SGRQ-c score are as shown in Table 1. Patients with phenotype C and D had poorer modified medical research center (MMRC) performance status and global initiative for COPD (GOLD) class based on FEV1. Nevertheless, only patients with phenotype D had significant higher total SGRQ-c score than others. They also scored significant higher in sub-components of COPD symptoms, activities and impacts. Patients with phenotypes B had numerically higher SGRQ-c total and symptoms score than those with phenotype A and C. The total and sub-components SGRQ-c score of patients with phenotype A and C were almost similar.

Conclusion: Patients with phenotype D had poorest QOL, followed by phenotype B. These groups of patients need additional medical attention, in terms of pharmacology treatment, physiotherapy and rehabilitation.

AP109

BUFEI YISHEN GRANULES SUPPRESS ALVEOLAR EPITHELIAL APOPTOSIS IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE RATS: VIA PERK/ EIF2α SIGNALING

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Background and Aims: The present study was initiated to explore the effect of Bufei Yishen granules (BY) against alveolar epithelial apoptosis via regulating by PERK/eIF2α signalling in chronic obstructive pulmonary disease (COPD) rat model.

Methods: Rats were randomized into Control, Model, BY, and aminophylline (APL) groups. COPD rats were induced by cigarette-smoke and bacterial exposures (weeks 1–8), and were administrated with normal saline, BY granules or aminophylline from week 9 to 16. Pulmonary function (VT, PEF) was measured every 4 weeks. Lung tissue histology and ultrastructure, alveolar epithelial apoptosis index, PERK, eIF2α, bcl-2 and Bad mRNA as well as protein expressions of PERK, eIF2α, p-PERK, p-eIF2α in lung tissues were measured.

Results: VT, PEF decreased from week 8 in COPD rats (P < 0.05). Compared with Model group, VT, PEF were higher in BY groups at week 16, while only VT was higher in APL group (P < 0.05). Markedly histological and ultrastructural changes, including thickened respiratory membrane, vacuolar lamellar corpuscle and reduced mitochondria, were found in COPD rats and were alleviated in the treated groups, especially in BY group. The epithelial apoptosis index significantly increased in COPD rats (P < 0.01), and it decreased in BY and APL groups, while that in BY group was lower than in APL group (P < 0.01). PERK, eIF2α, Bad mRNA increased and Bcl-2 mRNA decreased in COPD rats. PERK, eIF2α and Bad mRNA decreased in BY group (P < 0.05). PERK and Bad mRNA in BY group was lower than that in APL group (P < 0.05). The protein expression of PERK, eIF2α, p-PERK, p-eIF2α increased in Model group (P < 0.01). PERK, p-PERK, p-eIF2α expression in BY group and p-eIF2α APL group decreased compared with Model group (P < 0.05).

Conclusion: Bufei Yishen granules has the beneficial effects in COPD and can inhibit alveolar epithelial apoptosis, the activation of PERK/eIF2α signalling might be involved in the underlying mechanisms.