

Table S1. Demographic of 82 enrolled HPSCC patients stratified with *Fn*

Characteristics	Low <i>Fn</i> groups N=58	High <i>Fn</i> groups N=24	<i>p</i>-value (Two side)
Age (< 60 / ≥ 60)	27/31	12/12	0.776
Gender(female/male)	1/57	0/24	0.517
HTN (no/yes)	32/26	16/8	0.336
DM (no/yes)	52/6	22/2	0.780
Smoking (no/yes)	21/37	5/19	0.173
Alcohol (no/yes)	19/39	4/20	0.140
Pathological types (PS / nonPS)	49/9	22/2	0.385
IC before surgery (no/yes)	56/2	22/2	0.350
Options of operation (Pharyngectomy with/ without total Laryngectomy)	29/29	10/14	0.492
cT classification (T1-2/T3-4)	29/29	13/11	0.731
cN classification (N0/N+)	10/48	3/21	0.593
pT classification (T1-2/T3-4)	27/31	12/12	0.776
pN classification (N0/N+)	6/52	5/19	0.205
TNM stage (TNM III/TNM IV)	11/47	7/17	0.310
ENE (- / +)	41/17	19/5	0.431
Tumor diameters (≤4cm/ >4cm)	45/13	17/7	0.517
Size of lymph node (≤3cm/ >3cm)	36/22	16/8	0.694

Two side *p*-value under Pearson or Exact chi-square test. **p* < 0.05 means statistical significance with bold marker. Abbreviation: DM, diabetes mellitus; HTN, hypertension; PS, pyriform sinus type; ENE, extranodal extension