

Background

- Patients with chronic pancreatitis are at an increased risk of low bone density
- Tobacco smoking is an independent risk factor of low bone density in this patient population

Aim

- To determine if smoking cessation attempts would affect the risk of low bone density in chronic pancreatitis patients

Methods

- Retrospective cohort study utilizing TriNetX database
- Identified chronic pancreatitis patients with tobacco smoking history
- Cohorts defined as smoking cessation offered or not offered
- Smoking cessation defined as a prescription for varenicline/bupropion or smoking cessation counseling
- Outcomes included osteoporosis, malnutrition, calcium and vitamin D deficiency, and mortality
- Propensity score matching performed for demographics and medications

Results

Table 1: Patient Counts Before And After Propensity Score Matching

Cohort	Before Matching	After Matching
Smoking Cessation	9,057	9,000
No Smoking Cessation	56,666	9,000

Table 2: Demographics and Medication Utilization

Variables	Smoking Cessation (N=9,000)	No Smoking Cessation (N=9,000)	p-value
Age	53.2 (±12.1)	53.3 (±12.6)	0.448
Male	4,503 (50%)	4,524 (50.3%)	0.754
Female	4,497 (50%)	4,474 (49.7%)	0.732
Caucasian	6,396 (71.1%)	6,455 (71.7%)	0.331
African American	1,926 (21.4%)	1,913 (21.3%)	0.813
Hispanic	435 (4.8%)	435 (4.8%)	1.00
Not Hispanic	7,278 (80.9%)	7,320 (81.3%)	0.424
Lipase	1,399 (15.5%)	1,377 (15.3)	0.650
Pancrelipase	647 (7.2%)	604 (6.7%)	0.208
Vitamin D	1,200 (13.3%)	1,179 (13.1%)	0.644
Calcium	2,377 (26.4%)	2,387 (26.5%)	0.866

Table 3: One-Year Outcomes After Propensity Score Matching

Outcomes	Smoking Cessation (N=9,000)	No Smoking Cessation (N=9,000)	OR	95% CI
Osteoporosis	492 (5.5%)	478 (5.3%)	1.031	0.906-1.173
Calcium Deficiency	10 (0.1%)	10 (0.1%)	1.00	0.416-2.404
Vitamin D Deficiency	1,149 (12.8%)	849 (9.4%)	1.405	1.279-1.543
Malnutrition	1,012 (11.2%)	1,672 (18.6%)	0.555	0.510-0.604
Mortality	486 (5.4%)	772 (8.6%)	0.608	0.541-0.684

Conclusion

- ✓ Smoking cessation attempts in chronic pancreatitis patients with smoking histories are associated with one-year decreased risk of mortality and malnutrition
- ✓ Further attempts to provide smoking cessation options to chronic pancreatitis patients may improve outcomes