

Table 1.Characteristics of patients with acute pancreatitis and disease causes and outcome indicators.

Studies	N (T/C)	Gender (male/ female)	Mean age \pm SD (years)	Cause of acute panScreatitis	time recorded point	outcome indicators
Xu GB et al. 2013	35/35	37/33	50.3 \pm 7.9	biliary tract diseases:37 excessive drinking and eating:5 traumatic injury:5 unknown cause:5	NR	APACHE-II score,CRP,Length of ICU stay and mortality rate
Liu XS et al. 2017	22/53	T:14/8 C:31/22	T: (52.1 \pm 11.2) C: (50.7 \pm 13.4)	NR	24h 72h	HR, urine volume, K+,BUN,Scr,CRP,TNF- α , IL-6
Wang XQ et al. 2019	35/25	T:22/13 C:18/7	T: (40.5 \pm 9.5) C: (41.1 \pm 9.5)	hyperlipidemia	NR	Treatment effect,TG, CRP,blood amylase and urine amylase
Hui WJ et al. 2017	60/60	T:32/28 C:30/30	T: (37.6 \pm 5.4) C: (38.1 \pm 5.6)	NR	NR	Treatment effect, blood amylase, TNF- α , IL-1
Zou YD et al. 2017	31/31	T:18/13 C:16/15	T: (43.02 \pm 4.51) C: (43.85 \pm 3.91)	NR	NR	Treatment effect, blood amylase, CRP, IL-6,PO ₂
Deng ZY et al. 2014	32/32	46/18	41.7	biliary panScreatitis:47 alcoholic panScreatitis:12 unknown cause:5	NR	APACHE-II score,TNF- α , endotoxin, IL-6, IL-18, mortality rate
Peng Y et al. 2019	22/20	25/27	37	biliary tract diseases:18 excessive drinking and eating:11 mixed cause:10 idiopathic cause:3	NR	IL-6,TNF- α , blood amylase
Zhong X et al. 2017	37/37	T:23/14 C:21/16	T: (56.5 \pm 4.3) C: (55.8 \pm 4.4)	T: biliary tract diseases:14 excessive drinking and eating:8 alcoholism:9 other cause:6 C: biliary tract diseases:15 excessive drinking and eating:7 alcoholism:8 other cause:7	72h	Treatment effect, APACHE-II score,ALB,ALT, 24h urine output ,BUN,Scr
Peng B et al. 2019	41/41	T:27/14 C:26/15	T: (43.7 \pm 8.6) C: (44.3 \pm 8.5)	T: biliary tract diseases:19 hyperlipidemia:8 alcoholism:10	6h 12h 24h	PCT,CRP, D-dimer, blood lipase,blood amylase,PLT

				other cause:4 C: biliary tract diseases:17 hyperlipidemia:9 alcoholism:10 other cause:5			
Zou H.2018	22/15	T:20/2 C:4/11	T: (39.23±6.36) C: (38.27±6.77)	hyperlipidemia	48h	Treatment effect,TG,TCH, blood lipase,blood amylase,CRP,Scr	
Wang Y et al. 2018	36/36	T:24/12 C:25/11	T: (47.4±13.6) C: (46.7±13.2)	T: biliary tract diseases:19 excessive drinking and eating:7 alcoholism:10 other cause:4 C: biliary tract diseases:11 excessive drinking and eating:10 alcoholism:6 other cause:7	24h 72h	CRP, PCT, Scr, BUN, Ca, APACHE-II score	
Ni ZH.2013	29/22	T:21/8 C:10/12	T: (47.3±14) C: (47.18±12.24)	T: biliary tract diseases:8 excessive drinking and eating:8 alcoholism:8 unknown cause:5 C: biliary tract diseases:7 excessive drinking and eating:3 alcoholism:5 unknown cause:7	24h 48h 72h	24h urine output,PH,PO2,PCO2, BUN,SCr,Na,K,Ca,ALT,WBC, Treatment effect	
Li YN et al. 2002	20/17	25/12	43.3	biliary tract diseases:7 excessive eating:6 alcoholism:10 unknown cause:3 Trauma:2	7days	Treatment effect, blood amylase,SCr,TP,ALB,GLU,Ca	
Chen DJ et al.2018	49/49	T:26/23 C:24/25	T: (45.72±6.34) C: (46.52±7.35)	NR	12h 24h 36h	HR, 24h urine output,PO2,PCO2,PH,Ca,K,Na, BUN,SCr,GLU,ALT,PLT,WBC	
Tian JX et al.2015	60/60	T:35/25 C:36/24	T: (42.9±12.5) C: (43.8±11.7)	NR	72h	APACHE-II score, blood amylase,ALB,TP	
Li Q.2020	27/27	T:15/12 C:14/13	T: (45.39±5.56) C:	T: biliary calculi:4 alcoholism:7 sphincter	72h	APACHE-II score, Treatment effect	

			(45.66±5.79)	dysfunction of hepatopancreatic ampulla:3 hyperlipidemia:3 excessive drinking and eating:10 C: biliary calculi:3 alcoholism:8 sphincter dysfunction of hepatopancreatic ampulla:4 hyperlipidemia:3 excessive drinking and eating:9			
Xiao XP.2014	17/13	18/12	48±5	NR	24h 48h 72h	Treatment effect,TNF- α	
Zhu JG et al.2007	17/14	T:10/7 C:9/5	T: (49.93±10.3) C: (51.05±11.10)	NR	NR	HR,PCT,CRP, Treatment effect	
Wang LY.2017	45/45	T:28/17 C:25/20	T: (46.25±5.63) C: (48.53±6.24)	NR	NR	APACHE-II score,CRP,PCT, TNF- α	
Yang H.2013	25/25	27/23	43.25	NR	NR	APACHE-II score,SCr,TG, blood amylase ,PO ₂ ,ALT	
Li KY.2016	30/30	T:20/10 C:16/14	NR	NR	24h 72h 7days	HR,APACHE-II score,CRP,PCT, TNF- α ,BUN,SCr,ALT,AST	
Cui WY et al.2017	16/11	T:10/6 C:4/7	T: (49.91±24.23) C: (50.63±14.30)	T: biliary tract diseases:8 alcoholism:2 hyperlipidemia:5 other cause:1 C: biliary tract diseases:7 alcoholism:2 hyperlipidemia:2 other cause:0	24h 72h	SCr,WBC,CRP	
Chen FS.2020	45/45	45/45	45±6.7	NR	48h	SCr,PCT,TG,TB,pH,PO ₂ ,HR, blood amylase	
Xu F et al.2019	32/32	T:19/13 C:18/14	T: (42.05±3.93) C: (42.68±2.95)	T: biliary tract diseases:14 alcoholism:13 hyperlipidemia:5 C: biliary tract diseases:15	72h	HR,BUN,SCr,ALT,AST, blood amylase	

					alcoholism:12 hyperlipidemia:5		
Zhu CZ.2016	40/40	T:25/15 C:28/12	T: (45.2±8.5) C: (44.9±7.9)	NR	72h	PO ₂ ,PCO ₂ ,WBC,HR	
Gao N. et al.2018	46/46	T:24/22 C:22/24	T: (38.87±6.47) C: (39.13±6.56)	T: alcoholism:16 hyperlipidemia:20 cholelithiasis:7 other cause:3 C: alcoholism:14 hyperlipidemia:18 cholelithiasis:9 other cause:5	6h 12h 24h	PCT,CRP,IL-17,IL-6,HMGB1,D-dimer	
Xu JM. et al.2017	25/11	T:24/22 C:22/24	NR	NR	7days	blood amylase,ALT,SCr,CRP,Hb,ALB,Ca,WBC,INR	
Chen X et al.2019	32/28	T:20/12 C:18/10	T: (54.32±10.65) C: (58.94±9.02)	NR	7days	ALT,AST, TBIL,ALB,WBC,RBC,PLT,BUN,SCr, blood and urine amylase	
Zhang X.et al.2016	8/14	14/8	54±14	NR	48h	APACHE-II score,TG,CRP, Treatment effect	
Wang LF.2020	15/15	T:8/7 C:7/8	T: (46.7±11.4) C: (46.8±11.5)	NR	72h	Na,Ca,K,BUN,Scr,WBC,PLT,ALT,TBIL,HR, 24h urine output	
Liu MX.et al.2011	15/15	10/16	53±16	NR	48h	APACHE-II score,TG,CRP, blood and urine amylase, Treatment effect	
Xu JY.2013	12/20	23/9	47.5	hyperlipidemia	48h	Treatment effect, APACHE-II score,TG,CRP,blood and urine amylase	
Wu SK.2015	28/30	T:18/10 C:19/11	T: (67.5±10.3) C: (69.5±11.3)	T: alcoholism:8 cholelithiasis:10 other cause:10 C: alcoholism:10 cholelithiasis:12 other cause:8	NR	Treatment effect, the time taken for clinical indicators to return to normal	
Xu Y.et al.2009	30/30	T:20/10 C:19/11	T: (30±10.5) C: (43.1±10.5)	T: alcoholism:6 high-fat diet:6 history of biliary tract infection:5 excessive drinking and eating:12 unknown cause:1 C: alcoholism:6 high-fat diet:5 history of biliary tract infection:8 excessive drinking and eating:9 unknown cause:2	24h 48h 72h	APACHE-II score	

Wei R.2016	40/40	NR	60.3±1.8	alcoholism:37 cholelithiasis:43	NR	APACHE-II score,HR,MAP,CRP,BUN,AST
Tian GX.2016	60/60	T:32/28 C:30/30	T: (37.6±5.4) C: (38.1±5.6)	NR	NR	Treatment effect,IL-1,TNF- α,blood amylase
Wan CS.2017	60/60	NR	NR	T: alcoholism:18 cholelithiasis:13 excessive drinking and eating:24 unknown cause:5 C: alcoholism:20 cholelithiasis:15 excessive drinking and eating:21 unknown cause:4	72h	Na,K,Ca,BUN,SCr,WBC,PLT, ALT,TBIL,HR, 24h urine output
Wang YF.et al.2017	12/20	T:7/5 C:14/6	T:42 C:41	hyperlipidemia	NR	HR,SCr,TG,CRP,IL-1,TNF- α,GLU, APACHE-II score
Ji HL.et al.2011	36/38	T:23/13 C:25/13	T:57 C:54	NR	NR	CRP,APN, Treatment effect
Li LL.2018	40/40	T:23/17 C:25/15	T: (43.26±8.87) C: (42.17±8.67)	NR	72h	IL-6,TNFα,SCr,BUN, Treatment effect
Li YP.2014	13/13	T:9/4 C:9/4	T:51.8 C:56.5	alcoholism:8 cholelithiasis:3 excessive drinking and eating:10 hyperlipidemia:2 surgery:1 hepatopancreatic ampulla sphincter dysfunction:2	7days	IL-6,TNF- α,WBC,HR,CRP,PH,PO ₂ ,Treat ment effect
Li QB.et al.2009	19/19	T:12/7 C:14/5	T: (44.3±19.5) C: (45.4±18.7)	T: cholelithiasis:10 excessive drinking and eating:5 trauma:2 unknown cause:2 C: cholelithiasis:13 excessive drinking and eating:6	72h	IL-6,TNF-α, APACHE-II score,PO ₂ ,PH, Treatment effect
Hu W.et al.2001	10/10	T:7/3 C:7/3	T: (56.8±15.4) C: (59.7±13.2)	NR	7days	IL-6,TNF-α,IL-1β , APACHE- II score , Treatment effect
Shen Q.et al.2016	43/35	47/31	47.3±14.8	cholelithiasis:23 excessive drinking and eating:13 alcoholism:18 hyperlipidemia:15 unknown cause:9	72h	APACHE-II score, TNF-α,CRP, Treatment effect, blood amylase
Sun JH.et	39/39	T:22/17	T: (40.4±5.9)	NR	24h	HR,BUN,SCr,ALT,AST, blood

al.2018		C:24/15	C: (43.6±6.9)			amylase
Wu LM.et al.2013	40/18	T:17/23 C:11/7	T: (50.5±9.4) C: (51.4±7.8)	cholelithiasis:43 hyperlipidemia:13 other cause:2	72h	APACHE-II score,TBIL,SCr,Ca,GLU,WBC
Liu JQ.2019	50/50	T:27/23 C:26/24	T: (42.3±6.5) C: (42.1±7.1)	T: cholelithiasis:11 hyperlipidemia:17 alcohol abuse:14 other cause:8 C: cholelithiasis:13 hyperlipidemia:15 alcohol abuse:16 other cause:6	72h	PO ₂ ,WBC,MAP,Na,K,PCT,CRP
Hou QC.et al.2018	36/36	T:20/18 C:22/16	T: (42.3±6.5) C: (45.6±3.6)	NR	NR	APACHE-II score,CRP,PCT,TNF- α
Zhou JY.2015	23/23	T:13/10 C:12/11	T: (46.7±8.7) C: (47.2±9.1)	T: cholelithiasis:12 hyperlipidemia:4 alcohol abuse:6 other cause:1 C: cholelithiasis:10 hyperlipidemia:4 alcohol abuse:7 other cause:2	NR	CRP,PCT,SCr,BUN,ALT,ALB
Yu ZD.et al.2015	25/25	T:18/7 C:12/13	NR	biliary tract :25 cholelithiasis with cholecystitis:10 high-fat diet:7 alcohol abuse:3 overeating:3 unknown cause:2	NR	APACHE-II score,CRP
Wang XM.2016	50/50	T:28/22 C:26/24	T: (48.5±8.4) C: (45.4±6.2)	NR	NR	PO ₂ ,PH
Tang W.et al.2017	35/35	T:21/14 C:20/15	T: (45.6±13.1) C: (46.7±12.9)	T: alcoholism:8 cholelithiasis:7 excessive drinking and eating:6 hyperlipidemia:6 hepatopancreatic ampulla sphincter dysfunction:8 C: alcoholism:5 cholelithiasis:9 excessive drinking and eating:6 hyperlipidemia:7 hepatopancreatic ampulla sphincter dysfunction:8	48h	TG,TB,SCr,PCT,PH,PO ₂ ,AMS
Peng Y.et al.2017	40/40	48/32	34	NR	NR	Il-1 β ,TNF- α ,PCT,AMS,HR, APACHE-II score, Treatment

