Factors Predict Clinical Success of ERCP Biliary Drainage in Unresectable Perihilar Cholangiocarcinoma

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Background

Chemotherapy is only treatment available in unresectable perihilar cholangiocarcinoma. However, only few patients were able to receive chemotherapy according to high level of bilirubin affected by biliary obstruction.

Endoscopic retrograde cholangiopancreatography(ERCP) is often used to provide internal biliary drainage however some patients were failed to achieve clinical success.

Objectives

To evaluated the factors associated clinical success of ERCP with biliary drainage in unresectable perihilar cholangiocarcinoma.

Methods

- Retrospective chart review from 2010 to 2018
- Setting: Srinagarind Hospital, Khon Kaen University, Thailand
- 68 records of unresectable perihilar cholangiocarcinoma patients who had undergone ERCP with biliary drainage with technical success.
- An unsuccessful biliary drainage was defined when serum bilirubin reduced less than 50% of prior serum bilirubin in 2 weeks follow up.
- Statistics: Student's t-test, Kruskal wallis test, Pearson's chi-square test, Fisher's exact test and logistic regression were used for analyses.

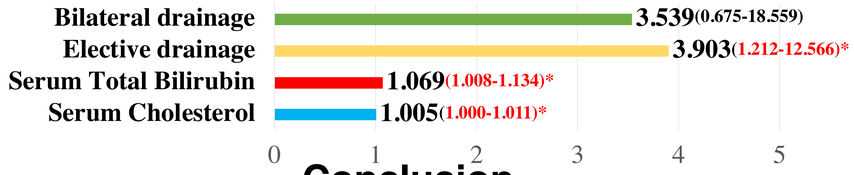
Results

Clinical success rate of biliary drainage = **50.6%**

Variables	Success(n = 41)	Unsuccess(n = 27)	p value
Age	61.49 ± 9.09	65.41 ± 10.44	0.106
Gender (male/female)	21/20	19/8	0.116
Body weight	58.27 ± 9.34	57.30 ± 9.59	0.680
Height	160.78 ± 9.55	161.22 ± 6.86	0.827
BMI	22.61 ± 3.54	22.04 ± 3.50	0.519
Bismuth classification			
• **Type I**	2	0	0.692
• **Type II**	0	0	
• **Type IIIA**	13	11	
• **Type IIIB**	10	7	
• **Type IV**	16	9	
Lab			
• **INR**	1.78 ± 1.40	1.83 ± 1.21	0.985
• **BUN**	11.91 ± 5.27	12.68 ± 5.08	0.456
• **Cholesterol**	282.95 ± 147.12	194.74 ± 102.52	0.003*
• **Alb**	3.25 ± 0.49	4.21 ± 5.20	0.712
• **TB**	21.71 ± 9.66	16.06 ± 10.28	0.024*
• **ALP**	634.07 ± 505.19	413.07 ± 281.22	0.033*
• **CA 19-9**	118.65 ± 243.03	184.25 ± 288.70	0.180

Intervention	Success (n=41)	Unsuccess(n=27)	p value
Elective/Emergency	29/12	12/15	0.030*
Unilateral/Bilateral stent	30/11	24/3	0.117
Ursodeoxycholic acid (Yes/No)	19/22	20/7	0.024*

Odds Ratio



Conclusion

Nowaday technical success in ERCP was high, whereas clinical success was doubtful. Higher serum cholesterol level, higher serum total bilirubin level and elective intervention were found to be the risk factors that affected the success rate of ERCP biliary drainage. This factor should be assessed to identify a patient who might benefit from other biliary drainage procedures.

References

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Disclosures

We have no conflict of interests.