

제 20회 담낭 용종 연구 보고

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➤ 데이터 구성

- 360명의 환자 데이터 (가톨릭 전체 데이터)
- Neoplastic : 307명, Non-neoplastic : 53명

➤ Train & Test Set

- 1,047장의 데이터셋
- Train Set : 288명(838장)
- Test Set : 72명(209장)

➤ Input Image

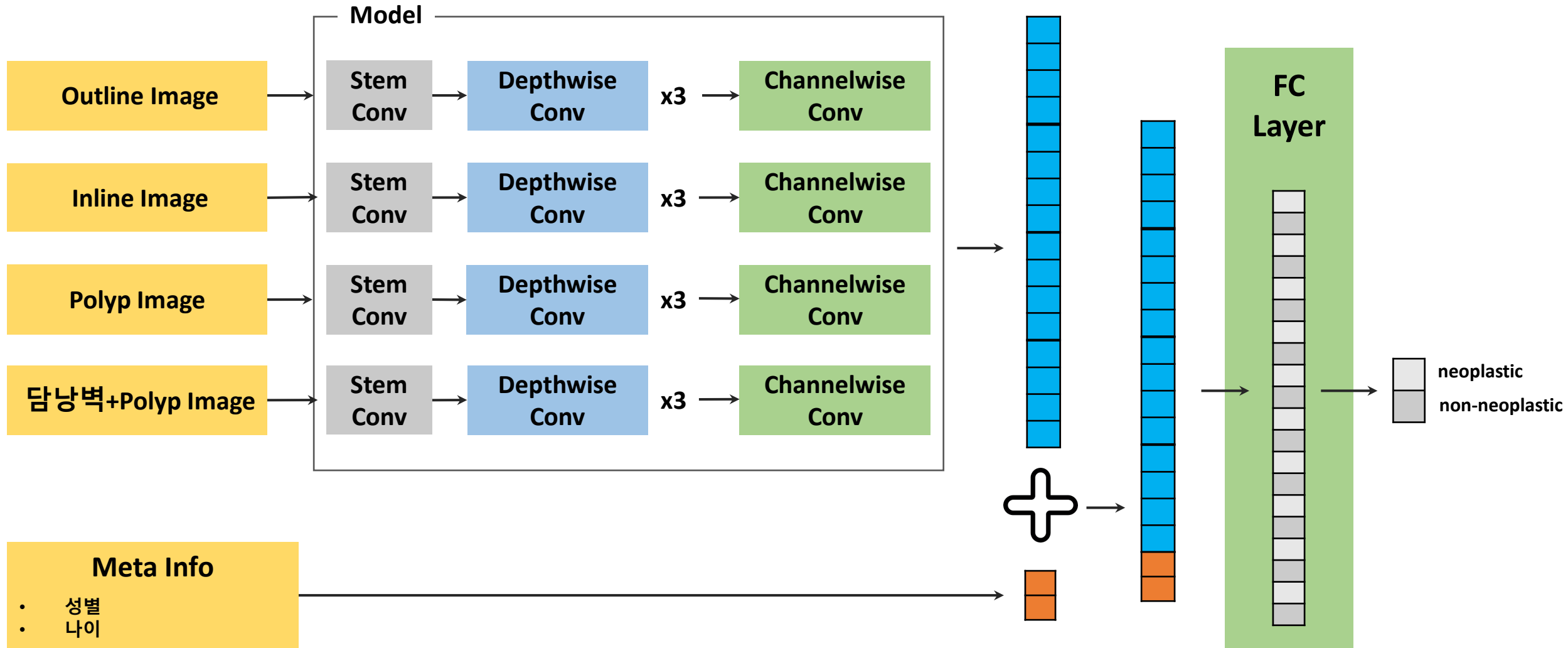
- Outline, Inline, Polyp, 담낭벽+Polyp 이미지

➤ 모델 구성

- 갑상선에서 사용한 모델을 담낭 용종 연구에 맞게 조정한 모델
- 데이터 불균형 문제를 해소하기 위한 Focal loss function 적용

➤ 30번 반복 실험

모형 파이프 라인



Vote Method Classification Performance Table

Table . Metrics with 95% confidence interval of five Images (▼/△ indicates that the corresponding method is significantly worse/better than Top-3 vote method based on paired t-test at 5% significance level).

Vote Method	Metrics	AUC Mean	95% CI		p-value
			Lower	Upper	
Top-3	AUC	0.597	0.561	0.634	
	Accuracy	0.619	0.521	0.717	
	Sensitivity	0.370	0.220	0.520	
	Specificity	0.664	0.522	0.806	
Top-5	AUC	0.596	0.560	0.632	0.966
	Accuracy	0.616	0.517	0.714	0.969
	Sensitivity	0.373	0.224	0.522	0.982
	Specificity	0.660	0.517	0.802	0.972
Top-10	AUC	0.593	0.557	0.629	0.891
	Accuracy	0.613	0.514	0.712	0.944
	Sensitivity	0.371	0.224	0.522	0.982
	Specificity	0.657	0.514	0.800	0.955

AUC, area under the curve; CI, confidence interval; NN, neural network. *: p-value < 0.01, **: p-value < 0.001

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Soft	AUC	0.583	0.550	0.617	0.658
	Accuracy	0.658	0.566	0.752	0.635
	Sensitivity	0.339	0.191	0.488	0.814
	Specificity	0.716	0.580	0.853	0.669

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