

**Supplementary table 1. Analysis of survival differences of patients receiving different adjuvant therapies in high-risk groups of two cohorts**

Group	Adjuvant treatment	Number of recurrences	3-year RFS rate (95%CI)	5-year RFS rate (95% CI)	P-value <sup>a</sup>	Number of deaths	3-year OS rate (95%CI)	5-year OS rate (95%CI)	P-value <sup>b</sup>
<b>High-risk group in training cohort (N=269)</b>	Follow-up (N=33)	15 (18.1%)	53.4% (36.2%-70.6%)	53.4% (36.2%-70.6%)	0.020	12 (22.6%)	69.7% (54.0%-85.4%)	62.5% (45.4%-79.6%)	0.018
	Only radiotherapy (N=84)	30 (36.1%)	70.2% (60.4%-80.0%)	62.0% (50.8%-73.2%)		19 (35.8%)	82.1% (73.9%-90.3%)	76.8% (67.2%-86.4%)	
	Only chemotherapy (N=25)	10 (12.0%)	60% (40.8%-79.2%)	60.0% (40.8%-79.2%)		5 (9.4%)	80.0% (64.3%-95.7%)	80.0% (64.3%-95.7%)	
	Chemoradiotherapy (N=127)	28 (33.7%)	79.5% (72.4%-86.6%)	77.7% (70.4%-85.0%)		17 (32.1%)	88.1% (82.4%-93.8%)	86.1% (80.0%-92.2%)	
	Follow-up (N=21)	10 (27.0%)	52.4% (31%-73.8%)	52.4% (31.0%-73.8%)	0.023	7 (30.4%)	66.7% (46.5%-86.9%)	66.7% (46.5%-86.9%)	0.107
<b>High-risk group in validation cohort (N=133)</b>	Only radiotherapy (N=38)	13 (35.1%)	65.8% (50.7%-80.9%)	65.8% (50.7%-80.9%)		7 (30.4%)	81.6% (69.3%-93.9%)	81.6% (69.3%-93.9%)	
	Only chemotherapy (N=9)	3 (8.1%)	66.7% (35.9%-97.5%)	66.7% (35.9%-97.5%)		2 (8.7%)	77.8% (50.6%-100%)	77.8% (50.6%-100%)	
	Chemoradiotherapy (N=65)	11 (29.7%)	86.2% (77.8%-94.6%)	82.8% (73.6%-92.0%)		7 (30.4%)	93.8% (87.9%-99.7%)	87.3% (78.3%-96.3%)	

Abbreviations: CI, confidence interval; RFS, recurrence-free survival; OS, overall survival; a, log-rank test of RFS; b, log-rank test of OS.

## **Supplementary materials R**

Description: Related Computerized Programs for Nomogram With R

### **APPENDIX**

#### **Related Computerized Programs for Nomogram With R**

##### **For dividing data sets into training cohort and validation cohort**

```
library(caret)
library(rms)
alldata_credit <- read.csv("f:\\alldata_credit.csv")
train <- createDataPartition(y=alldata_credit$Figo, p=0.70, list=FALSE)
YCtraindata0526 <- alldata_credit[train, ]
YCtestdata0526 <- alldata_credit[-train, ]
```

##### **For Nomogram**

```
library(survival)
library(rms)
data(package="survival")
dd<-datadist(YCtraindata0526)
options(datadist="dd")
f<-cph(Surv(YCtraindata0526$RFS01, YCtraindata0526$recurrence)~TD+PT01+Grade02+PI+Myo+LVSI+VI+LM+AT+HALP01group, data=YCtraindata0526, x=TRUE, y=TRUE, surv=TRUE)
survival<-Survival(f)
survival1<-function(x) survival(12, x)
survival2<-function(x) survival(36, x)
survival3<-function(x) survival(60, x)
nom<-nomogram(f, fun=list(survival1, survival2, survival3), fun.at =
c(0.05, seq(0.1, 0.9, by=0.1), 0.95), funlabel = c('1 year RFS', '3 year RFS', '5 year RFS'))
plot(nom)
```

##### **For Computing the C-Index and 95% CI in Training cohort and Validation**

## **cohort**

```
library(survival)

library(rms)

fit<-coxph(Surv(RFS01,recurrence)~TD+PT01+Grade02+PI+Myo+LVSI+VI+LM+AT+HALP01group,data = YCtraindata0526)

survConcordance(Surv(YCtraindata0526$RFS01,YCtraindata0526$recurrence)~predict(fit,YCtraindata0526))

survConcordance(Surv(YCtestdata0526$RFS01,YCtestdata0526$recurrence)~predict(fit,YCtestdata0526))
```

## **For Calibration Curve for Training Cohort**

```
library(survival)

library(rms)

f1<-cph(Surv(YCtraindata0526$RFS01,YCtraindata0526$recurrence,type = "right")~TD+PT01+Grade02+PI+Myo+LVSI+VI+LM+AT+HALP01group,data = YCtraindata0526,x=TRUE,y=TRUE,surv=TRUE,time.inc = 5*12)

cal=calibrate(f1,cmethod = 'KM',method = "boot",u=5*12,m=200,B=1000)

plot(cal,lwd=1,lty=1,errbar.col=c(rgb(0,0,0,maxColorValue = 255)),xlim = c(0.6,1),ylim = c(0.6,1),xlab = "Nomogram Predicted Survival",ylab="Actual Survival",col=c(rgb(255,0,0,maxColorValue =255)))

abline(0,1,lty = 3,lwd = 2,col = c(rgb(0,118,192,maxColorValue=255)))

lines(cal[,c('mean.predicted','KM')], type = 'b',lwd = 2, col = c(rgb(192,98,83,maxColorValue = 255)),pch = 16)
```

## **For predictions of the validation cohort**

```
library(survival)

library(rms)

f<-cph(Surv(RFS01,recurrence)~TD+PT01+Grade02+PI+Myo+LVSI+VI+LM+AT+HALP01group,data = YCtraindata0526)

fp<-predict(f,newdata = YCtestdata0526)
```

```
predictions<-predict(f,newdata = YCtestdata0526)
```

```
predictions
```

### **For Calibration Curve for Validation Cohort**

```
f2<-cph(Surv(YCtestdata0526$RFS01,YCtestdata0526$recurrence,type  
"right")~predictions,x=T,y=T,surv=T, time.inc =5*12)  
validate(f2,method = "boot",B=1000,dxy=T,u=5*12)  
cal<-calibrate(f2,cmethod = 'KM',method = "boot",u=5*12,m=150,B=1000)  
plot(cal,lwd=1,lty=1,errbar.col=c(rgb(0,0,0,maxColorValue = 255)),xlim =  
c(0.6,1),ylim = c(0.6,1),xlab = "Nomogram Predicted Survival",ylab="Actual  
Survival",col=c(rgb(255,0,0,maxColorValue =255)))  
abline(0,1,lty = 3,lwd = 2,col = c(rgb(0,118,192,maxColorValue=255)))  
lines(cal[,c('mean.predicted','KM')], type = 'b',lwd = 2, col =  
c(rgb(192,98,83,maxColorValue = 255)),pch = 16)
```

### **For Computing the C-Index and 95% CI For Different Models**

#### **Model A**

```
library(survival)
```

```
library(rms)
```

```
fit1<-coxph(Surv(RFS01,recurrence)~PLR+ALB, data = YCtraindata0526)
```

```
survConcordance(Surv(YCtraindata0526$RFS01,YCtraindata0526$recurrence)~predi  
ct(fit1,YCtraindata0526))
```

```
survConcordance(Surv(YCtestdata0526$RFS01,YCtestdata0526$recurrence)~predict  
(fit1,YCtestdata0526))
```

#### **Model B**

```
library(survival)
```

```
library(rms)
```

```
fit2<-coxph(Surv(RFS01,recurrence)~ PT01+PI +FIGO, data = YCtraindata0526)
```

```
survConcordance(Surv(YCtraindata0526$RFS01,YCtraindata0526$recurrence)~predict(fit2,YCtraindata0526))
```

```
survConcordance(Surv(YCtestdata0526$RFS01,YCtestdata0526$recurrence)~predict(fit2,YCtestdata0526))
```

### **Model C**

```
library(survival)
```

```
library(rms)
```

```
fit3<-coxph(Surv(RFS01,recurrence)~SIRI+FIGO+LVSI, data = YCtraindata0526)
```

```
survConcordance(Surv(YCtraindata0526$RFS01,YCtraindata0526$recurrence)~predict(fit3,YCtraindata0526))
```

```
survConcordance(Surv(YCtestdata0526$RFS01,YCtestdata0526$recurrence)~predict(fit3,YCtestdata0526))
```