

DAFTAR ISI

HALAMAN SAMPUL	i
LEMBAR PENGESAHAN PEMBIMBING.....	ii
LEMBAR PENGESAHAN PENGUJI.....	iii
PERNYATAAN BEBAS PLAGIASI.....	iv
KATA PENGANTAR.....	v
DAFTAR ISI	ix
DAFTAR TABEL	xi
DAFTAR GAMBAR	xii
DAFTAR SINGKATAN.....	xiii
INTISARI.....	xvii
ABSTRACT.....	xviii
BAB I PENDAHULUAN	1
A. Latar Belakang	1
B. Rumusan Masalah	3
C. Tujuan Penelitian.....	3
D. Keaslian Penelitian.....	3
E. Manfaat Penelitian.....	6
BAB II TINJAUAN PUSTAKA	7
A. Karsinoma Sel Hati (KSH).....	7
B. Peran <i>Transarterial Chemoembolization</i> pada KSH.....	21
C. <i>Pan Immune Inflammation Value</i> terhadap Karsinoma Sel Hati ...	30
D. Kerangka Teori.....	39
E. Kerangka Konsep	40
F. Hipotesis.....	40
BAB III METODE PENELITIAN.....	41
A. Desain Penelitian	41

B. Populasi Penelitian	42
C. Subyek Penelitian	42
D. Besar Sampel Penelitian	43
E. Variabel Penelitian	44
F. Definisi Operasional Penelitian	45
G. Alur Penelitian	49
H. Analisis Data	49
I. Perizinan dan Etika Penelitian	50
BAB IV HASIL DAN PEMBAHASAN	51
A. Hasil Penelitian	51
B. Pembahasan	60
C. Kelebihan dan Keterbatasan Penelitian	78
BAB V KESIMPULAN	81
A. Kesimpulan	81
B. Saran	81
DAFTAR PUSTAKA	83
LAMPIRAN	91

DAFTAR TABEL

Tabel 1. Penelitian mengenai <i>Pan Immune Inflammation Value</i> (PIV) pada pasien KSH	4
Tabel 2. Kriteria Diagnosis Karsinoma Sel Hati (PPHI, 2017).....	12
Tabel 3. Skala Status Performa Berdasarkan Klasifikasi <i>The Eastern Cooperative Oncology Group</i> (ECOG) (PPHI, 2017).....	13
Tabel 4. Sistem Klasifikasi <i>Child-Pugh</i> (PPHI, 2017).....	13
Tabel 5. Kriteria modifikasi RECIST (Müller <i>et al.</i> , 2021).....	25
Tabel 6. Definisi Operasional Penelitian.....	45
Tabel 7. Karakteristik dasar subjek penelitian.....	53
Tabel 8. Perbedaan PIV berdasarkan karakteristik.....	55
Tabel 9. Analisis Bivariat Indikator Prognostik Kesintasan 6 Bulan Pasien KSH yang menjalani TACE.....	58
Tabel 10. Analisis Multivariat Indikator Prognostik Kesintasan 6 Bulan Pasien KSH yang menjalani TACE.....	59
Tabel 11. Prediksi Kesintasan Hidup dalam 6 Bulan pada Pasien KSH yang Menjalani TACE.....	60

DAFTAR GAMBAR

Gambar 1. Patogenesis KSH (Dhanasekaran <i>et al.</i> , 2016).....	11
Gambar 2. Sistem Stadium BCLC (PPHI, 2017)	13
Gambar 3. Algoritma Tata Laksana Karsinoma Sel Hati (PPHI, 2021)	14
Gambar 4. Heterogenitas KSH stadium BCLC B (Kudo <i>et al.</i> , 2020).....	20
Gambar 5. Alur algoritma TACE pada tatalaksana KSH (Raoul <i>et al.</i> 2019).....	24
Gambar 6. Alur kriteria evaluasi dan keputusan saat TACE (Müller <i>et al.</i> , 2021)	26
Gambar 7. Inflamasi dalam tumorigenesis dari sel hepatosit (Ait-Ahmed & Lafdil, 2023)	27
Gambar 8. Rumus PIV.....	31
Gambar 9. Mekanisme trombositosis akibat keganasan (Plantureux <i>et al.</i> , 2018).....	35
Gambar 10. Peran Platelet dan Leukosit Pada Kanker (Stoiber dan Assinger, 2020).....	38
Gambar 11. Kerangka Teori	39
Gambar 12. Kerangka Konsep	40
Gambar 13. Desain penelitian	41
Gambar 14. Alur penelitian	51
Gambar 15. Kurva <i>Receiver Operating Characteristic</i> (ROC) untuk <i>Cutoff</i> PIV	54
Gambar 16. Tingkat Kesintasan Hidup 6 Bulan Pasien KSH	56
Gambar 17. Grafik Kaplan-Meier Kesintasan Hidup 6 bulan Pasien KSH yang Menjalani TACE berdasarkan PIV	56

DAFTAR SINGKATAN

AFLD	: <i>Alcoholic Fatty Liver Disease</i>
AFP	: <i>Alfa-Fetoprotein</i>
AJCC	: <i>American Joint Committee on Cancer</i>
AST	: <i>Aspartate Transaminase</i>
BCLC	: <i>Barcelona Clinic Liver Cancer</i>
BFGF	: <i>Basic Fibroblast Growth Factor</i>
BMEC	: <i>Bone Marrow Endothelial Cells</i>
CAFs	: <i>Cancer associated Fibroblasts</i>
CCL17	: <i>C-C motif Chemokine Ligand 17</i>
CCL2	: <i>C-C motif Chemokine Ligand 2</i>
CD4	: <i>Cluster of differentiation 4</i>
CD8	: <i>Cluster of differentiation 8</i>
CE-CT	: <i>Contrast Enhanced Computed Tomography</i>
CE-MRI	: <i>Contrast Enhanced Magnetic Resonance Imaging</i>
CEUS	: <i>Contrast-Enhanced Ultrasonography</i>
CI 95%	: <i>Confidence Interval 95%</i>
CLIP	: <i>Cancer of Liver Italian Program</i>
CP	: <i>Child-Pugh</i>
CR	: <i>Complete Response</i>
CRP	: <i>C-Reactive Protein</i>
CSCs	: <i>Cancer Stem Cells</i>
CT scan	: <i>Computed Tomografi Scan</i>
cTACE	: <i>conventional TACE</i>
CUPI	: <i>Chinese University Prognostic Index (CUPI)</i>
CXCL 1	: <i>CXC Chemokine Ligand 1</i>
CXCL 5	: <i>CXC Chemokine Ligand 5</i>
CXCL 6	: <i>CXC Chemokine Ligand 6</i>

CXCL 8	: <i>CXC Chemokine Ligand 8</i>
CXCR 2	: <i>CXC Chemokine Receptor 2</i>
DC	: <i>Dendritic Cell</i>
DCP	: <i>Des-gamma-carboxy prothrombin</i>
DEB-TACE	: <i>Drug-Eluting Beads TACE</i>
DFS	: <i>Disease-Free Survival</i>
DM	: <i>Diabetes Mellitus</i>
DNA	: <i>Deoxyribonucleic acid</i>
EBRT	: <i>External Beam Radiation Therapy</i>
ECOG	: <i>Eastern Cooperative Oncology Group</i>
EHS	: <i>Extrahepatic Spread</i>
ER	: <i>Estrogen Receptor</i>
ERK1/2	: <i>Extracellular signal-Regulated Kinases 1 dan 2</i>
FLK-2	: <i>Fetal Liver Kinase-2</i>
FNA	: <i>Fine Needle Aspiration</i>
GCSF	: <i>Granulocyte Colony Stimulating Factor</i>
G-CSF	: <i>Granulocyte Colony-Stimulating Factor</i>
GMCSF	: <i>Granulocyte-macrophage colony-stimulating facto</i>
GM-CSF	: <i>Granulocyte Macrophage Colony-Stimulating Factor</i>
GRETCH	: <i>GRoupe d'Etude et de Traitement du Carcinoma Hepatocellulaire</i>
HBV	: <i>Hepatitis B Virus</i>
HCV	: <i>Hepatitis C Virus</i>
HR	: <i>Hazard Ratio</i>
IFN	: <i>Interferon</i>
IL 1	: <i>Interleukin 1</i>
IL 17	: <i>Interleukin 17</i>
IL 6	: <i>Interleukin 6</i>
IL1 b	: <i>Interleukin 1 b</i>
IL3	: <i>Interleukin 3</i>
IL-6	: <i>Interleukin-6</i>
IL8	: <i>Interleukin 8</i>

INR	: <i>International Normalized Ratio</i>
KC	: <i>Kupfer Cell</i>
KSH	: <i>Karsinoma Sel Hati</i>
LIF	: <i>Leukemia Inhibitory Factor</i>
LPC	: <i>Liver Progenitor Cells</i>
M1	: <i>M1 Macrophages</i>
M2	: <i>M2 Macrophages</i>
MAPK	: <i>Mitogen-activated protein kinase</i>
M-CSF	: <i>Macrophage Colony-Stimulating Factor</i>
MHC-1	: <i>Major Histocompatibility Complex</i>
NAFLD	: <i>Non-Alcoholic Fatty Liver Disease</i>
NASH	: <i>Non Alcoholic Steatohepatitis</i>
NF-K	: <i>Nuclear Factor Kappa-light-chain</i>
NLR	: <i>Neutrophil to Lymphocyte Ratio</i>
NLR	: <i>Neutrophyl lymphocyte ratio</i>
OR	: <i>Objective Response</i>
OS	: <i>Overall Survival</i>
PD	: <i>Progressive Disease</i>
PEIT	: <i>Percutaneous Ethanol Injection Therapy</i>
PFS	: <i>Progression - Free Survival</i>
PIV	: <i>Pan Immune-Inflammation Value</i>
PIVKA-II	: <i>Proteins Induced by Vitamin K Absence-II</i>
PLR	: <i>Platelet-to-Lymphocyte Ratio</i>
PPOK	: <i>Penyakit Paru Obstruktif Kronis</i>
PR	: <i>Partial Response</i>
PS	: <i>Performance Status</i>
PVT	: <i>Portal Vein Tumor Thrombosis</i>
qSOFA	: <i>quick Sequential (Sepsis-related) Organ Failure Assessment</i>
RECIST	: <i>Response Evaluation Criteria in Solid Tumours</i>
RFA	: <i>Radiofrequency Ablation</i>
RFS	: <i>Recurrence-Free Survival</i>

ROC	: Receiver Operating Characteristic
ROS	: Reactive Oxygen species
SBRT	: Stereotactic Body Radiation Therapy
SD	: Stable Disease
Seg PVTT	: Segmental Portal Vein Tumor Thrombosis
SIRT	: Selective Internal Radiation Therapy
STAT 1	: Signal Transducer and Activator of Transcription 1
STAT3	: Signal Transducer and Activator of Transcription 3
T Reg	: Regulatory T cells
TACE	: Transarterial Chemoembolization
TAN	: Tumor Associated Neutrophil
TGF	: Transforming Growth Factor
TGFB	: Transforming growth factor beta
TNF alfa	: Tumor necrosis factor alfa
TNM	: Tumor, Node, Metastasis
TPO	: Thrombopoietin
USG	: Ultrasonografi
VEGF	: Vascular Endothelial Growth Factor