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## Tujuan :

**1**

**memahami :**

fisiologi  
indikasi & kontra indikasi  
prinsip dasar teknik  
peralatan dan obat-obatan

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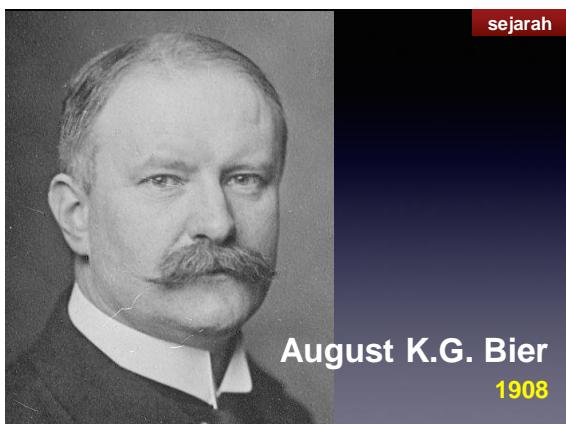
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**2**

**mengetahui :**

efek samping  
cara menghindari  
dan mengatasi



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sejarah

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## mekanisme kerja

ujung **syaraf perifer** mendapat nutrisi dari pembuluh darah kecil  
**difusi** anestesia lokal ke ujung syaraf anestesia akan tetap ada bila **konsentrasi** anestesia lokal pada sistem vena tetap tinggi  
sebelum injeksi, **exsanguinasi** sistem vena

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blok lengan bawah dan tungkai bawah  
prosedur singkat (< 1 jam)  
carpal tunnel release  
tendon contracture release  
ketidaknyamanan akibat penggunaan torniket

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**keuntungan & kerugian**

**keuntungan:**

mudah, efektif, onset cepat,  
relaksasi sempurna

**kerugian:**

nyeri torniket  
tidak ada analgesia post operatif  
toksisitas obat





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posisi supine

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canulasi iv, fiksasi kuat

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padding/velband  
eksanguinasi  
torniket - proksimal

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obat lokal anestesi



bupivacaine 0,25%  
ropivacaine 0,2 %  
meperidin  
ketorolak  
klonidin

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jarum paling kecil  
kebocoran kaf  
eksanguinasi



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pengakhiran blok



kaf dikempiskan berlahan dan bertahap  
resolusi cepat anestesi dan analgesia  
perlu **rescue** analgesia

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perioperatif



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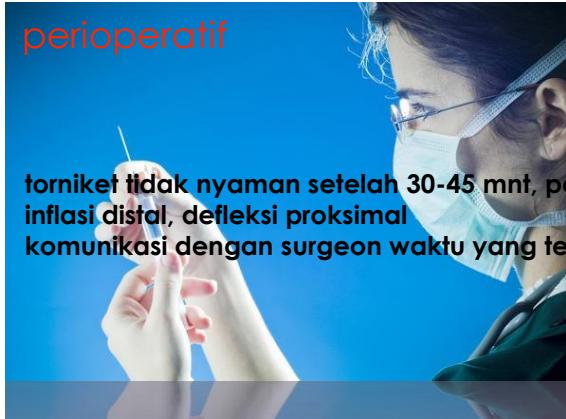
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perioperatif



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deflasi kaf proksimal



inflasi kaf distal  
cek tekanan kaf distal, lihat manometer  
deflasi kaf proksimal  
penandaan kaf - supaya tidak keliru

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komplikasi

## komplikasi

**toksisitas obat lokal anestesi  
hematoma  
engorgement (pembengkakan)  
ekimosis dan perdarahan subkutan**

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komplikasi

## toksisitas obat lokal anestesi

**torniket tidak adekuat  
tekanan dipertahankan  
deflasi berlahan/bertahap  
deflasi = pelepasan obat ke sistem**

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komplikasi

## toksisitas obat lokal anestesi

**metabolisme obat  
dosis besar  
tanda-tanda :  
tinnitus  
bradikardi, tensi drop, asistol  
parestesi, kejang**

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komplikasi

## toksisitas obat lokal anestesi

deflasi bertahap  
parsial  
reinflasi  
deflasi ke 120 mmHg — inflasi 150  
mmHg 10 detik — deflasi ke 100  
mmHg — inflasi 120 mmHg  
prosedur pendek - deflasi lambat

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## hematoma



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## pembengkakan



arteriosklerosis & kalsifikasi arteri : efektifitas torniket tidak optimal

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langkah-langkah

**persiapan  
alat  
obat  
monitor  
resusitasi**

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**torniket blok intra vena**

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**torniket blok intra vena**

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langkah-langkah

cek nadi ekstremitas

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langkah-langkah

injeksi lokal anestesi

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ivra satu torniket

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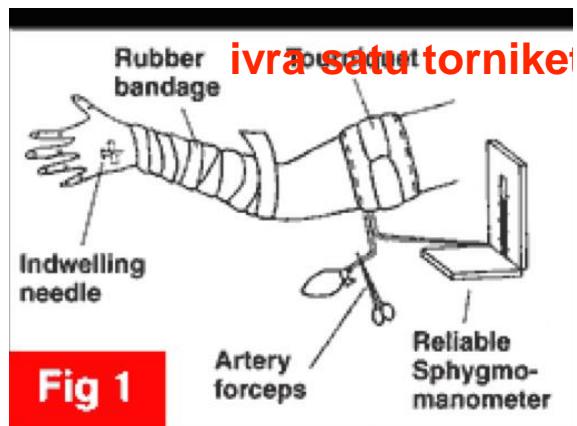
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terima kasih