



)LJXUH KRUDFR DEGRPLQDO &7 VFDQ
RI WKH WKRUDFLF DRUWD



)LJXUH KRUDFR DEGRPLQDO &7 VFDQ VKR
ZEWK DEVFHVV

7KH SDWLHQW QHHGHG LQYDVLYH YH QWLQD WLRQ DOWIPLFH ELDQ WUHDWPHQ
ZDV FKDQJHG WR FODYXODQLF DFLG DPR[L
WLPHV D GD\ DQG FLSURIOR[DFLQ DW WKH
7UHDWPHQW ZLWK LQIXVLRQ RI LVRWRQLF
UDWH RI P/ NJ SHU KRXU GXULQJ WKH IL
KRXU ZDV VWDUWHG 5HJXODU LQVXOLQ Z
FRQWLQXRXV LQWUDYHQRXV LQIXVLRQ DW I
\$IWHU WZR GD\ RI WUHDWPHQW ZH KDG
FRQWUDVW ZLWK XQIDYRUDEOH HYROXWLR
WR\ ZKLWH EORRG FHOOF&FRKQDWLYH \$BRV
PJ O ZLWK KHPRG\QDPLF GHWHULRUDWL
LQWUDYHQRXV LQIXVLRQ RI QRUDGUHQDOLC
DQWLIXQJDO DJHQWV)OXFRQDJROH DW WK
IROORZHG E\ PJ ,9 RQFH D GD\ WR SULRU DQWLIELRWKHODS\



)LJXUH KRUDFR DEGRPLQDO &7 VFDQ VKR
LQYHVWLJDWLRQV EORRG DQG XULQH LQIDQFWLRQ H[DPLQDWLRQV RI WUDFKHD
DVSLUDWHV ZHUH QHJDWLYH DQG WKRUDFR DEGRPLQDO &7 VFDQ VKRZLQJ
DQHQGRQPLQDO GHIHFW RI WKRUDFLF DRUWD D VSOHOLF DEVFHVV DQG UHQD
LQIUDFWLRQ)LJXUHV 7UDQV HVRSKD JHDOHEK RFDUGLPRUPPQVKRZHGUD DSS
QRUPDO DRUWLF DQG PLWUDO YDOYH SDWLHQW KDG SHUFLVWPHQVKRZHGUD DQG
LVRODWLQJ OHWKLFOOLQ UHVLVWDQW 6WDSK\ORFRFFXV DXUHXV %DVHG RQ WK
ILQGLQJV WKH GLDJQRVLV RI LQIHFWL \$RXPV CDRQW\WHV QZDWR FRQQLQJ FIDQ G L7RK\$XO
SDWLHQW ZDV WKHQ WUHDWPHG XVLQJ ZYDQFH RPPRULQO FJDQXO D9WL BQIDPSLFLQ
PJ ,9 WZLFH D GD\ DQG JHQWDPLFLQ)RXU'DRQWLF YHJHW DWLRQV ZHUH IRXQG
HUuW 0"Sp °€P @HUW 0"2ap 0PÀEs U0€ RUWLWLD

&7 VFDQ LV FRQVLGHUHG DQ LPDJLQJ
UDGLRORJLFDO ILQGLQJV VXFK DV SHULD
VL]H DLU LQ WKH DRUWLF ZDOO DQG D
GLDJQRVLV %XW VPDOO YHJHWDWLRLQV D
RU ZDOO HGHPD PD\ EH PLVVHG > @

\$OWKRXJK RXU SDWLHQW KDG WUDQV HV
VFDQ QR H[DP VKRZHG DEQRUPDOLWLHV R

7KH LQLWLDO WUHDWPHQW RI VXVSHFWH
DQWLELRWLFV ZLWK EURDG DQWLPLFURE
SDWKORJLFDO RUJDQLVPV SDUWLFXODU
QHJDWLYH URGV \$QWLELRWLFV VKRXOG E

)LJXUSHRUWLF YHJHWDWLRLQV

7KH P\RFDUGLDO ELRSV\ VKRZHG D P\RFDUGLWLW\ ZLWK GLIIXVH
QHXWURSKLO LQILOWUDWLRLQ RI P\RFDUGLXP P\RF\WH GHVWUXFWLRQ DQG
P\RFDUGLDO HGHPD 8QIRUWXQDW\ WKH SDWLHQW GLHG DIWHU VXUJHU
EHFDXVH RI VHYHUH P\RFDUGLWLW\

'LVFXVVVLRQ

,QIHFWLRXV WKRUDFLF DRUWLWLW\ LV D UDUH HQWLW\ LQ WKH DQWLELRWLF HU
D PDOH SUHGRPLQDQFH DQG WKH PHDQ DJH DW GLDJQRVLV LV \HDUV ROG ,I
LW RFFXUV DVVRFLDWHG WR DQ LQIHFWRXV HQGRFDUGLWLW\ WKHUH LV QR JHG
SUHGRPLQDQFH DQG WKH PHDQ DJH DW GLDJQRVLV LV \HDUV ROG > @

5LVN IDFWRUV IRU DRUWLWLW\ LQIHFWRQV DUH WKH VDPH DV WKRVH IRU
DWKHURVFOHURVLV DRUWLW\ WUDXP\ FRQJHQLWDO DRUWLW\ DQRPDOLHV DQG
FRQGLWLRQV FDXVLQJ LPSDLUHG LPPXQLW\ VXFK DV FDQFHU GLDEHWHV
DOFRKROLVP DQG LPPXQRVXSSUHVVLYH WKHUDSLHV > @

'LDJQRVLV LV IUHTXHQWO\ GHOD\HG VLQFH FOLQLFDO PDQLIHVWDWLRLQV DUH
XVXDOO\ QRQVSHFLwF RU WKH wUVW V\PSWRPV RIWHQ UHVXOW IURP H[SDQVLRQ
RU UXSWXUH RI DQ DQHUXU\VP ,QIHFWLRXV WKRUDFLF DRUWLWLW\ VKRXOG DOZD
EH FRQVLGHUHG LQ HOGHUO\ SDWLHQWV ZLWK DWKHURVFOHURVLV KLVWRU
WKRUDFLF DEGRPLQDO RU EDFN SDLQ DQG YDJXH V\PSWRPV VXFK DV
QDXVHD YRPLWLQJDQG IHYHU > @

, Q RXU FDVH WKH RQO\ ULVN IDFWRU ZDV GLDEHWHV WKH SDWLHQW ZDV \RXQJ
DQG KDG RQO\ UHVSUDWRU\ V\PSWRPV PLVOHDGLQJ WKH GLDJQRVLV 6LQFH
LQIHFWRXV DRUWLWLW\ XVXDOO\ DIIHFWV SDWLHQWV ZLWK DVVRFLDWHG LQIHF
HQGRFDUGLWLW\ WUDQV HVRSKDJHDO HFKRFUDGLRJUDP LV IUHTXHQWO\ WKH IL
LPDJLQJ PRGDOLW\ WR EH SHUIRUPHG LQ GDLO\ SUDFWLFH 7KH WKRUDFLF DRUW
VKRXOG EH SURPSWO\ H[DPLQHG IRU HYLGHQFH RI DQHUXU\VP RU
YHJHWDWLRLQV 7KH LPPHGLDWH SUR[LPLW\ RI WKH HVRSKDJXV WR WKH JUHDW
YHVVHOV DOORZV RSWLPDO LPDJLQJ ORUHRYHU WLVVXH 'RSSOHU
HFKRFUDGLRJUDSK\ FDQ LPSURYH VWUXFWXUDO LGHQWLILFDWLRLQ 7UDQV
HVRSKDJHDO HFKRFUDGLRJUDP FDQ GLVWLQJXLVK LQWUDPXUDO KHPDWRRPD
DQHUXU\VP SVHXGR DQHUXU\VP DQG GLVVHFWLRQ RI WKH WKRUDFLF DRUWD > @

&LWDW&RKQPFKLN + \$FKqFKH : \$PDUD \$ \$ELGL 6 .RWDV & HW DO ,QIHFWRXV 7KR
GRL

3DJH RI

1DUDQJ \$7 5DWKOHY 1. 1RQ DQHXU\VPDSCH\QSHF\\$VLRIXLVG DR-UWL\WV3- D3LQKR 3 0D
FDVH UHSRUW - (PHUJ OHG WKRUDFLF DRUWLWLV DOLWHUDWXUH UHYL
0DOR-XI &KDQGUDVHNDUDQ . 2UV]XODN 7\$ <LK/LP\ F3&WLFXIDQHHM\-\OPV&KXD </ &KLD 6
RI WKH WKRUDFLF DRUWD D GLDJQRVWLF FKWDKROUHDFJHF \\$R U-WOLHGLV FRPSOLF DWHG E\ DRU
:HLQ %DUWHO 7 .DEDWQLN 0 6DGRQ\ 9 'LUVFK 2 HW DO 5DSL
SURJUHVVLRQ RI EDFWHULDO DRUWLWLV WR7DQJD\$&FH&QGHLOQW 6D R U\W L3F 8RFRQW-L7F DQXHUX\VP
GRFXPHQWHG E\ WUDQVHVRSKDJHDO HFKIRQIDHFGVLRG UDDOSHKXU\VP\\$DQG6R\$VHXGRDQHXU\VP
(FKRFDUGLRJU DRUWD \$P - 6XUJ